TELEVISION AND ELECTRONICS INDUSTRY FEATURED TODAY

The COMMERCIAL and FINANCIAL CHRONICLE

Reg. U. S Pat. Office

Volume 179 Number 5304 New York 7, N. Y., Thursday, March 4, 1954 Price 40 Cents a Copy

EDITORIAL

As We See It

In almost pathological fear of an early postwar depression — which, in the event, never even threatened—Congress passed and the President signed in 1946 an act (Employment Act of 1946) which as usually interpreted places upon the Federal Government the responsibility for preventing any serious business recession in the future. The basic tenets of that law have now become part and parcel of the political mores of this country. According to the views, or perhaps better the emotions, of a great many, to express any doubt about the wisdom or the practicality of this enactment is to betray a lack of something or other which is an essential ingredient of good citizenship in this modern age of paternalism and slavish dependence upon government.

All this was painfully evident in the political campaigns of 1952, in which not only the Fair Dealers (whose attitude on the subject was to be taken for granted) but the Republican high command, including even the Presidential candidate himself, never tired of expressing unending devotion to the principles of the 1946 act. Repeatedly since that time the President has assured the nation that his Administration has no intention of permitting any serious deterioration in the state of business, and that to prevent such a development he would, if necessary, make use of all the resources at his command. The late Senator Taft is known to have been of the opinion that the leading, perhaps the paramount, hazard of the Republican regime during this term of office of the President, was the possibility of a serious depression with widespread unemployment, and the behavior of the professional element in the

Continued on page 40

Television: Major Factor In Electronics Industry

By FRANK W. MANSFIELD*
Director of Sales Research,
Sylvania Electric Products, Inc.

Picturing electronics as "the fastest growing of the world's major industries," Mr. Mansfield discusses its present status and potentials for the years ahead. Lists as two major fields within electronics industry, entertainment and national defense. Reveals sales of electronic products in 1953 totaled $4,600,000,000, with prospects of increase in coming years. Calls electronics $8 billion industry, with likelihood of reaching $12 billion by 1960.

It is my confirmed opinion that electronics is the fastest growing of all the world's major industries. In fact, the potential of electronics has been described as the world's most promising technological revolution. When I speak of the growth of electronics, I do not necessarily use the word "growth" in the very technical sense that analysts apply to certain securities, but I do mean that its potential for growth appears limitless from the standpoint of new products and dollar sales, the expansion of companies already in the industry and the entrance of new companies, the new applications that will be found for electronic equipment and components, the increased strength which electronics will put in our national defense, and the greater benefits it will bring to industry, commerce, the home, and to that most ubiquitous of all characters, John Q. Public.

F. W. Mansfield

A little later on, I am going to dissect the electronics industry into its integral parts, and try to predict the potential for each separate phase of the industry. First, however, I think we should have complete agreement

Continued on page 43

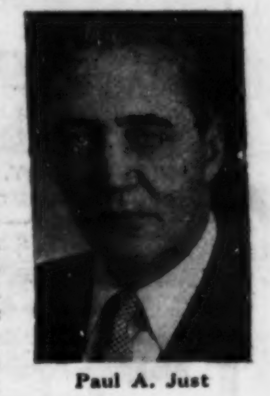
*An address by Mr. Mansfield before the Eastern Regional Conference of New York Society of Security Analysts, New York City.

Medical Electronics—A Billion Dollar Market

By PAUL A. JUST
Executive Vice-President,
Television Shares Management Corporation

Mr. Just describes electronic developments in the field of medicine and the important contributions that electronics is making in the diagnosis and treatment of human ills. Reveals use of television in medical instruction and its complementary application, known as "telegriosis," which uses facsimile equipment for transmitting X-ray pictures. Reports $1 billion as value of electronic equipment in use by medical profession.

Few more important contributions are being made by the science of electronics to human welfare than in the field of medicine. In medicine as well as in industry, transportation and communications, the dazzling rapidity of electronic developments makes it difficult to evaluate them. Nevertheless, it is safe to say that today electronics presents a great new factor in medical science.



Paul A. Just

Thus far, electronic devices have been developed for seeing through the human body, for producing artificial fever, for locating and diagnosing damage to the brain or lungs, for giving internal treatment with artificially generated ultra-violet rays, and for many other beneficial purposes. Detectors and counters are now in existence that reveal and chart accurately many physiological and chemical changes in the human system about which little was known heretofore. Hardly a week goes by that does not witness the development of some new electronic device in the field of medicine. Recently, a leading trade publication heralded the electronic fluoroscope. This piece of equipment is designed to replace the conventional fluoroscopic screen on which your physician is able to see your X-ray shadowgraph. The new electronic fluorscope

Continued on page 30

PICTURES IN THIS ISSUE—Candid shots taken at the Annual Mid-Winter Dinner of the INVESTMENT TRADERS ASSOCIATION OF PHILADELPHIA appear in the Pictorial Section starting on page 31.

The Security I Like Best

A continuous forum in which, each week, a different group of experts in the investment and advisory field from all sections of the country participate and give their reasons for favoring a particular security.

(The articles contained in this forum are not intended to be, nor are they to be regarded, as an offer to sell the securities discussed.)

This Week's Forum Participants and Their Selections

Combustion Engineering Co. — A. J. Cortese, Market Analyst, A. M. Kidder & Co., New York City. (Page 2)

Crown Cork & Seal Co.—Irving Komanoff, Herzfeld & Stern, New York City. (Page 2)

A. J. CORTESE

Market Analyst, A. M. Kidder & Co., New York City

Members, New York Stock Exchange

Combustion Engineering

Whether the stock averages are in a bull or bear trend, there is no dispute that individual issues and groups have been in major bull or bear movements of their own. A stock that appears to be in a long-term bull trend, and with good reason, is Combustion Engineering.


A. J. Cortese

The company designs, manufactures and installs steam generating equipment for public utility power stations, industrial plants and marine service. It also produces pressure vessels, process equipment used by industry and by municipalities and household water heaters. Its largest volume of business is done with the utilities and its high-pressure, high-capacity units are located in some of the most efficient steam-electric power stations in the country. Its installations are world-wide.

The expansion of electric-generating capacity that is anticipated over the next decade is well known and should assure the company of a high level of operations. A separate nuclear power division was formed last year to design and produce equipment for the use of atomic energy in generating electric power. In common with other companies engaged in atomic energy programs, the company can reveal little about its activities in this field, but it is known that it is supplying components for the second atomic submarine, the "Sea Wolf."

Looking ahead many years to come, it is possible or likely that the U. S. Navy will convert its vessels from oil to atomic energy. Of course, no one can tell at this time when or to what extent such a development might take place, but it would be an operation of enormous significance and would very likely mean a large volume of contracts for the company. Application of atomic energy will probably be more rapid in the Navy than in commercial power plants. The company has not only long supplied steam generating equipment for the Navy, but has also pioneered in new developments which the Navy has adopted.

Earnings in the 12 months ended Sept. 30, 1953 were $8.07 per share as compared with $5.72 in the preceding 12 months. Full year earnings for 1953 are estimated at $7 to $7.50 as compared with $6.15 for 1952. Average earnings in the four years 1949-52, since the merger with Superheater Co., were $7.17 per share. At a recent price of 54 (New York Stock Exchange) the current dividend of $3.00 yields 5.6%. Since the merger, the regular dividend rate was increased once, in late 1950, from $2.00 to $3.00.

There are no bonds or preferred stock ahead of slightly more than 1,000,000 shares of common outstanding. There is a term loan of $10 million, which was made for plant expansion; repayments commence June 30, 1954 and the term ends Dec. 31, 1959. In addition, short-term bank loans, under an $11 million credit arrangement, amount to $4.5 million; interest on the latter is at the prime rate of 3%.

The latest balance sheet, as of Dec. 31, 1952 (when the above loans were in effect), showed current assets of $88.4 million, of which $13.9 million was in cash and $1.9 million in Canadian securities. Current liabilities were $39.6 million, making current ratio 2.2 to 1.0.

Current backlog is about $170 million, which compares with annual sales volume during 1949-52 of between $95 million and $137 million. The volume of business from the utility industry declined last year, will remain about unchanged this year and the company expects it to resume the upward trend next year.

The stock, in my opinion, is worth consideration for income and long-term appreciation, for participation in the expansion of the utility industry and in the application of atomic energy. The stock has recently risen rapidly and a reaction of several points would be quite in order.

IRVING KOMANOFF

Herzfeld & Stern, New York City

Members, New York Stock Exchange

Crown Cork & Seal

Rare indeed is the opportunity for an investor or speculator to buy a stock of a large nationally known company where earnings are in a sharp uptrend—and yet where the price of the stock is within striking distance of a 10-year low.


I. Komanoff

This unusual opportunity is currently available in the common stock of Crown Cork & Seal now selling at 12½. In this writer's opinion it can reasonably be said that this opportunity will not be at hand for very much longer. For as 1954 progresses and the sharp earnings improvement in this company begins to become better known, a strong advance in the price of this security could readily take place.

Crown Cork & Seal is the leading producer of crown caps and other metal closures. As such it supplies about half of the U. S. market. Crown Cork also ranks third among the producers of cans and metal containers—being outranked only by American Can and Continental Can. The output of Crown Cork & Seal is sold to a cross-section of vital American industry — namely, the beverage, food, drug and paint industries. As such, Crown Cork has demonstrated its ability to maintain its sales even when general economic conditions decline.

From a price of 31 in 1946 and more recently from 22 in 1951, the common stock of Crown Cork has been depressed to where it is now selling only a little above its 10-year low. The reason for this precipitous drop was the sharp decline in profits from $2.54 a common share in 1951 to $.26 a share the following year. Primarily responsible for this profit decline from 1951 into the first quarter of 1953 were two factors:

(1) Government Price Controls which placed price ceilings on the company's products at a time when raw material prices and wage rates were constantly soaring.

(2) Inability of the can division to operate profitably.

In the last year, however, both of these factors have been largely overcome. In the early part of 1953, with the demise of OPA, substantial price relief was secured from this rigid price squeeze. In addition, a thorough reorganization of the company's can division was undertaken. Management changes were effected with a resulting improvement in efficiency and profit margins — so much so, that some profit from can making appears likely this year.

The result for the last three quarters of 1953 prove conclusively that Crown has turned the corner and is definitely on the way to recover its former earning power. From a deficit of 13c in the first quarter of 1953, earnings have improved in each consecutive quarter—viz.

24¢..........in June quarter
31¢..........in Sept. quarter
35¢ (esti.)....in Dec. quarter

Thus, earnings for 1953 are expected to be in the vicinity of 77¢ as against 26¢ for 1952. The first quarter of 1954 should see earnings of about 40¢ per share as against a deficit of 13¢ a year ago.

Concurrent with this demonstrated revival of earnings, it is expected that quarterly distributions of as much as 20¢ per share will be resumed in 1954 as against a payment of 15¢ made in December, 1953. (The first since the second quarter of 1952.)

In view of these factors, it is somewhat of a mystery to see the stock of Crown Cork still selling at the depressed price of 12½. Surely, as the sharply improving trend of earnings becomes apparent, a worthwhile rise in the price of the stock is a reasonable expectation. In each of the last 10 years, Crown Cork has sold above 15¾ and has spent most of its price range in the 'twenties. Now, with a revitalized management and newborn earning power, a price more in keeping with that of 1951—when it sold at 22—is not beyond the realm of the improbable.

This writer has canvassed practically the entire list of stocks on the New York Stock Exchange. It is difficult, if not impossible, to find a listed company which will show such percentage increase in earnings in 1954 as against 1953 and 1952 as will be shown in Crown Cork & Seal. Yet here is a stock selling for little more than half of what it sold for in 1951. Surely, such an opportunity will not go begging for long.

Television's Inherent Vitality

By COURTNAY PITT*

Vice-President, Finance, Philco Corporation

Pointing out television, as in other appliance industries, needs not only production of fine product, but also creation of a demand for it through merchandising, Mr. Pitt predicts, despite unfavorable and misleading publicity since March, 1953, more television and radio sets will be sold in 1954 than the cold statistics indicate. Sees an inherent vitality in television, and says companies which overproduced are now clearing their inventories. Looks for possible price increases, and estimates there will be 200 new TV stations in current year. Forecasts only a trickle of color television sets on market in 1954, but a rapid increase thereafter. Estimates government purchases of electronic equipment in 1953 and 1954 at $3½ billion annually. Concludes total electronic business, at factory level, in 1954 will exceed $5 billion.

The electronics industry has the pronounced advantage of being one of the great growth industries of our time. The industry has been in a strong growth trend for a whole generation now, and the end is not in sight. From sales of less than $200,000,000 in 1939, the industry's total volume approximated $5,000,000,000 last year, and there is good reason to believe that substantial further progress is going to be made by the leading companies—especially those doing the research and development work on new ideas and new products—over the years ahead.

Courtnay Pitt

Now I would be the last one to predict that further growth and future progress are going to come about automatically and without a lot of hard work. Nothing could be farther from the truth. In post war America, there has been all too much guessing about where the Federal Reserve Board index is going to be three or six months from now — and perhaps not enough attention has been given to the thought and effort that different groups and individuals are giving to stimulating and enlarging their own part of the economy.

The current view of the electronics industry in some financial circles may reflect this general attitude. I would remind you that television and, in fact, the appliance industry are promotional businesses. It is not just enough to engineer and produce a fine product. It is equally important to create the demand for the product through merchandising and advertising and point-of-sale information.

The leading companies in the industry have been able to do this successfully over the years, and that is one of the principal reasons why the industry has almost always made and sold more radio sets, and in later days more television sets, than might have seemed likely on a cold statistical basis at the beginning of the year.

I have a feeling that the same thing is going to happen in 1954. If ever an industry has had to contend with a barrage of unfavorable and misleading publicity over an extended period, it has been the television industry since the end of March a year ago. If there were time, I could cite one instance after another when the public was utterly confused and misinformed about color television and when it would be available, until a climax was reached at the time the public demonstration was held at the Waldorf-Astoria in New York on Oct. 15, 1953 with the attendant front-page publicity and television and radio news bulletins.

At frequent intervals all last year, people who wanted to make the headlines got up and solemnly announced that there would be "Color by Christmas." No wonder the public hesitated for a while in its buying of black and white sets, and certain companies resorted to drastic price cuts to move the merchandise they had built too far in advance of the demand.

Looking back, the remarkable thing is that business fared as well as it did, and that the industry had its second best year with sales at the factory level of about 6,750,000 receivers. Nothing I know of better demonstrates the inherent vitality of television and the value it offers.

With the passage of time, a better sense of proportion has developed. Companies which overproduced are clearing their inventories, and the demand from the public, who have separated the wheat from the chaff of all last year's conversations, is resulting in a very gratifying volume of receiver business. It is even possible that you will see some price increases as compared with the reductions of late 1953.

There are now more than 350 television stations on the air, and we can expect more than 200 new stations to begin operations this year. Many of these new stations will be in areas which have not had television service previously. With more than 550 stations in service, the demand for new receivers and replacements for obsolete, small screen sets is bound to be heavy. If the general economy holds near current levels, and apparently the financial com-

Continued on page 25

*An address by Mr. Pitt before the Third Eastern Regional Conference of the New York Society of Security Analysts, New York City.

INDEX

Articles and News

Articles on Television and Electronics Industry

Regular Features

*See "Canadian Economy in 1954" on page 10.

**Mr. May's column not available this week. He is on a trip through Europe and Middle East investigating Cold War results in the economic area.

Published Twice Weekly

The COMMERCIAL and FINANCIAL CHRONICLE

Reg. U. S. Patent Office

WILLIAM B. DANA COMPANY, Publishers
25 Park Place, New York 7, N. Y.
REctor 2-9570 to 9576

HERBERT D. SEIBERT, Editor & Publisher
WILLIAM DANA SEIBERT, President

Thursday, March 4, 1954

Every Thursday (general news and advertising issue) and every Monday (complete statistical issue — market quotation records, corporation news, bank clearings, state and city news, etc.).

Other Offices: 135 South La Salle St., Chicago 3, Ill. (Telephone STate 2-0613); 1 Drapers' Gardens, London, E. C., England, c/o Edwards & Smith.

Reentered as second-class matter February 25, 1942, at the post office at New York, N. Y., under the Act of March 8, 1879.

Subscription Rates

Subscriptions in United States, U. S. Possessions, Territories and Members of Pan-American Union, $48.00 per year; in Dominion of Canada, $51.00 per year. Other Countries, $55.00 per year.

Other Publication

Bank and Quotation Record — Monthly, $33.00 per year. (Foreign postage extra.)

Note—On account of the fluctuations in the rate of exchange, remittances for foreign subscriptions and advertisements must be made in New York funds.

What We May Expect in Electronics

By C. B. JOLLIFFE*

Vice-President and Technical Director, Radio Corp. of America

Asserting electronic research has only just begun to work the wonders of which it is capable, Dr. Jolliffe points to television, which did not even exist in 1945, but now accounts for 80% of the $3 billion electronics industry. Discusses possibilities of color television, along with other lines of electronic research, and points out fields of its use in business, in science, and in the home. Concludes, there is no present limit to electronic development.

Industrial research is largely a development of our generation, but its growth has been so rapid that nearly all corporations dependent upon the natural sciences support research laboratories. These corporations find that research pays; it returns large dividends in new products and services.

Dr. C. B. Jolliffe

As illustrations I give you two quotations:

Brig. General David Sarnoff, Chairman of the Board of RCA, said in a talk to the directors of Stanford Research Institutes:

"Today, science and industry are linked by arteries of progress and their life blood is technical research. Without continued pioneering and research, those arteries would harden. The spirited advance of industry would be slowed: progress would decline and come to an end.

"This pattern of our industrial progress is clear. It lies in a partnership between those who create good things and those who produce and distribute and service them. It lies in teamwork between research and industry."

Mr. Crawford Greenewalt, President of du Pont, said recently in San Francisco:

"Our frontiers have moved from the West into the research laboratory, and in that move have become frontiers without limit.

"Today it is research that gives the American economy its characteristic surge and its dynamic qualities. And research requires people with the same courage, vision and determination as those who a century ago crossed the Western plains."

So rapid is the pace of electronic research and development that the man who tries to describe the electronic products of tomorrow may sound a lot more knowing than he really is. Those of us who are in close contact with electronic research know only that we are dealing with a science that has just begun to work the wonders of which it is capable, not only in terms of technical accomplishment, but even more in terms of a better life for all of us.

Much of the future in electronics exists today as experimental devices in our industrial laboratories or even as untested ideas in the minds of our scientists and technicians. We can guess, but we cannot know, which of these devices and ideas may be working fundamental changes in our way of living during the next decade. We are well aware, however, that the research process from which these developments emerge is the life blood of the electronics industry. In the millions of dollars being invested by business concerns such as RCA to maintain extensive research facilities are planted tomorrow's profits.

Color Television

Today, in television, we have two dramatic examples that illustrate the accomplishments and promise of electronic research. Black-and-white television has established itself phenomenally during the past seven years as an integral part of American life. Color television has just now moved up from the development stage to the initial phases of production for service to the public. It holds great promise for the future.

As far as its commercial aspects are concerned, black-and-white television is a post-war phenomenon—perhaps the most rapidly developed major industry in our history. In 1946, the first postwar year, there were about 10,000 television sets in the United States, many of them being used experimentally. After two years, the total had reached 1,000,000. Today, at the end of eight years, nearly 27,000,000 sets are in use, produced by nearly 100 manufacturers and served by 360 broadcasting stations. As General Sarnoff pointed out a few weeks ago, a television industry that did not even exist at the end of the war in 1945 accounted for 80% of the $3 billion radio and television business during 1952!

This is a triumph of industrial research in electronics.

Through the boom of the late 1920's and the depression decade of the 30's, intensive research into the many problems of television by the scientists and engineers of RCA was generously supported and encouraged by our management. This research laid a solid basis for the phenomenal growth of the new television industry which took place after World War II was won. This research program, together with the development of broadcasting and production facilities, cost RCA more than 50 million dollars before production was started. There can be no question that the results have justified the expenditure. This investment in research and engineering produced a major industry and a significant public service.

What of the Future?

But that is here—what of the future? We stand now at the threshold of the color television era. The official opening of this era occurred only last month when the Federal Communications Commission approved standard signal specifications on which the new color system operates. Behind these specifications, and behind the cameras, transmitters and receivers that are now going into production to carry color to a great future audience, stands a 30 million dollar RCA research and development plan which began in the 1930's. This research and development must continue so that the apparatus that will make this service a part of our life can continue to be improved and reduced to a price that makes it available to all of our people. We certainly

Continued on page 42

*An address by Dr. Jolliffe at the Third Eastern Regional Conference of the New York Society of Security Analysts, New York City, Jan. 28, 1954.

The State of Trade and Industry

Steel Production
Electric Output
Carloadings
Retail Trade
Commodity Price Index
Food Price Index
Auto Production
Business Failures

Total industrial production for the nation-at-large in the period ended on Wednesday of last week suffered a moderate setback due to Washington's Birthday.

Output dropped below that of the preceding week and continued at a level of close to 7% under the like period in 1953.

Reports of layoffs were less frequent than in recent weeks with recalls more numerous. The number of unemployed though, continued to be substantially greater than a year ago, comprising approximately 5% of the labor force.

An encouraging note was struck by the National Association of Purchasing Agents in its February report when it stated, "The bright spot is in new orders." It disclosed the fact that about 30% of its members reported increases in bookings "exactly balancing the number of decreases." That was the best showing since last March, it was reported.

Beginning of March finds steel business more lamb-like than the weather, according to "The Iron Age," national metalworking weekly. Steelmaking operations this week are scheduled at 70.5% of rated capacity, down three points from last week's revised rate, and another new low for the year.

This will be a bitter disappointment to those who had been banking on seasonal factors to bring about an upturn in March. Chances are steel business will improve during the month. But it will take a gain of 3½ points in the operating rate to get back to the February average of 74.0% of capacity. Chances of doing much better than that are slim, states this trade authority.

Total steel production in March will probably be greater than February. But this will be due primarily to three more days in the month. A sharp unturn in business just isn't in the cards—at least not during the next 30 days, it notes.

The decline in the ingot rate this week does not mean that steel business has taken a sudden turn for the worse. It results at least in part from need of some producers to work off stocks of semi-finished steel they had accumulated in the hope that business would improve. Thus, rolling mills are temporarily processing more steel than is being melted, continues this trade journal.

Actually some of the seasonal factors that had been counted on to spur the market are wielding positive influence. But this bullish influence is offset by depressing forces which have lin-

Continued on page 58

Railroads and Their Securities

By HERBERT F. WYETH*
Shearson, Hammill & Co.
Members, New York Stock Exchange

Pointing out that, despite discrediting of railroads as an investment medium, their securities are still being accumulated by insurance, savings banks and other similar institutions, Mr. Wyeth stresses the importance of selectivity in analyzing investment merits of individual rail issues. Lays down as factors in selecting railroad securities: (1) territory served; (2) competition; (3) type of traffic; (4) terminal situation; (5) proportion of passenger to freight traffic; and (6) management. Says a constructive attitude toward future of railroad industry is fully justified, and cites use of diesel engines and other mechanical improvements as giving a "new look" to the rails. Reviews briefly outlook of individual railroad companies.

Railroading is a wide field of investment, with some $9 billion of bonds and $8 billion par value of stocks outstanding. Also, it is a widely misunderstood and generally maligned investment medium.


Herbert F. Wyeth

There is much loose thinking, largely based on some unhappy experiences in the 1930s, to the effect that railroad bonds as such lack true investment characteristics. Fortunately this opinion is not shared by many of our leading institutions, including banks and some of the large insurance companies. Life insurance companies have been increasing their net holdings of railroad bonds consistently since the end of World War II and now hold at least a third of all such securities outstanding. Institutional holdings of railroad stocks have also been increasing, although this trend has been retarded somewhat by legal restrictions. Thus, whether you realize it or not, and whether you like it or not, all of you who have life insurance policies, and most of you who have savings bank accounts, have a direct and important financial stake in the railroads.

*An address by Mr. Wyeth at Columbia University, New York City, March 2, 1954.

Railroad Securities Should Be Considered Individually

It never has been possible, and presumably never will be possible, to consider the industry or the securities of all individual railroads as presenting a single investment problem. No one would think of saying, just as one example, that because General Motors is an attractive investment the same must be true of Packard just because they both manufacture automobiles. Yet the very people who would deride such investment philosophy will not hesitate to say, "The rails are a buy," or "The rails are a good sale," tarring all units in this widely diverse industry with the same brush.

To underline the fallacy, and real danger, of any such approach to investment in railroad securities it is only necessary to look at the record. Back in 1940 Santa Fe common sold at 13 and Pennsylvania was at 15, with both showing about the same earnings per share. Last year Santa Fe earned $14.62 a share, on a stock that had been split two-for-one, while Pennsylvania had earnings of $2.81 a share. Pennsylvania is still selling where it did nearly 15 years ago, while Sante Fe common is selling at the equivalent of about 200. I could cite many other similar examples, some just as spectacular, but will not belabor the point at this time. What I want to impress on you is that selectivity has always been the key to successful investment, and is daily becoming more important.

Our whole economy is in a constant state of flux, and conditions affecting the fortunes of the individual railroads will naturally reflect these changes. I might mention at this point a few of the factors that have led, and will continue to lead, to wide variations in the performances and prospects of the individual railroad.

(1) **Territory:** There has been a long-term trend toward decentralization of industry, marked by a rapid expansion in population and industrial plant, first in the southeast and more recently in the western sections of the country. This has meant more traffic for the roads operating in the growth centers at the expense, at least in a relative sense, of the more mature sections of the industrial New England, northeastern and middlewestern States. This trend, by all indications, is continuing, perhaps even at an accelerated pace.

(2) **Competition:** One of the factors most often mentioned by those taking a gloomy view of the future outlook for the railroads is the growth of new forms of competition. There is no question but that the pipe lines, barges, trucks, air lines, and private automobiles have diverted a considerable volume of potential business from the railroads. The impact of these competitive agencies, however, has varied widely with individual roads. Pipe lines, for instance, have largely affected only those roads that originally had an important tonnage of petroleum products. Roads with the largest passenger business have naturally been hardest hit by competition from airplanes, busses and private automobiles. Barge competition is important only to those roads that parallel waterways. Trucks have made their greatest headway against those roads serving relatively compact areas served by extensive good highway systems.

Factors in Railroad Investment Analysis

(3) **Type of Traffic:** To a certain degree this point overlaps the preceding one of competition. Truck competition has been most severe in the case of consumers goods and for l. c. l. shipments. Thus, roads primarily dependent on heavy goods industries and with a small volume of l. c. l. business have generally maintained their positions more readily. Also, with respect to l. c. l. freight, it is generally expensive to handle and has a large labor factor. Thus, as wages have gone up the roads with the greatest amount of this type of traffic have found it more difficult to control expenses.

(4) **Terminal Situation:** For the most part wage increases granted in the past 10 years have been on a cents-per-hour basis, with all classes of employees faring the same. This has meant that the lower salaried workers have been given the larger percentage increases. This has meant a more rapid increase in the station and yard costs than in road haul costs and the increased station and yard costs have been harder to offset than road haul costs where the diesel has been so valuable. Thus, roads with heavy terminal operations have generally lagged behind the others with respect to cost control. Also, with respect to origination and termination of traffic the length of haul is important. The cost of originating or terminating any shipment is just as high if it travels only 50 miles as if it moves 200 miles and produces four times as much revenue. A railroad with a large amount of short haul traffic is saddled with inordinately high orignating or terminating costs in relation to the revenue produced.

(5) **Passenger Business:** Passenger business, and particularly short haul local and commutation service, is expensive and generally conducted at substantial losses. The road that has a large passenger business of this nature will naturally experience a serious drain on its profits from the freight service.

(6) **Management:** The caliber of management will vary widely and it is management that makes the important decisions that influence traffic volume through aggressive solicitation policies, reduced costs through modernization programs, financial policies, etc. With the many serious problems that the railroads have had to face in recent years, and still must face, this question of quality and depth of management is becoming increasingly important and in my opinion is the most vital consideration in the whole picture today.

I have gone on at some length outlining the points of difference there are between the various roads. These differences are reflected in the operations and earnings of the individual railroads. How wide the variations may be is best illustrated by the wide range of transportation ratios, the percent of the revenue dollar spent on actually moving and handling the traffic, and the profit margins, the percent of the

Continued on page 46

"OBSERVATIONS"

A Wilfred May's Column does not appear this week. Mr. May is on a trip through Europe and the Middle East investigating Cold War results in the economic area.

Investment Policy and the Economic Background and Outlook

By HAROLD E. AUL*
Vice-President, Calvin Bullock
Investment Company Underwriters

Asserting we are now in a business recession, investment firm executive holds the relatively mild economic downturn will extend through the year, during which there will probably be: (1) readjustments of top heavy inventories; (2) lower level of demand for products of heavy industry, consumer durables, and capital equipment; (3) a moderate further decline in Federal Government expenditures; and (4) reduced consumer buying because of rising unemployment and payments on high level of consumer debt. Sees prospect of government intervention to avoid sharp slump and expects lower taxes. Holds there is evidence of lack of public confidence, and a huge amount of inflation has been frozen into the economy. Concludes, however, underlying factors indicate a strong stock market.

The year just closed has been the most prosperous in the history of the Nation. The number of people employed, incomes received and goods and services produced, have all been the highest on record. With the exception of some farm products, prices have been remarkably stable; and increased production at stable prices has meant a further rise in the standard of living—the product of a dynamic economy.

Harold E. Aul

Despite this impressive record on an annual basis, the year ended on a note of considerable apprehension, in view of the evidence of a declining trend of business in the course of the last six months. Between the second and fourth quarters of 1953 the gross national product declined from an annual rate of 372.4 billion dollars to 360 billion or about 3.3%; and the Federal Reserve Board index of industrial production fell from 137 in July to 127 in December, about 7.3%.

The declining trend of production has been reflected in employment and in labor income. The number of unemployed in mid-January was estimated at 2.25 million, an increase of more than one million in a period of three months from October, 1953, to the highest level since early 1951; and, because of a concurrent reduction in the labor force, the decline in the number of employed in that period has mounted to about two million. A reduction in the number of hours worked and in overtime also resulted in a declining trend during the past six months in the average weekly earnings of those employed.

It is now clear that the rise in industrial production which took place in the first half of 1953 was at a more rapid rate than the gain in consumption; and we are now in a process of adjustment of the over-accumulation of inventories last year.

Unwieldy inventories in certain sectors of the economy and a slowing down of retail sales resulted in a sharp and persistent decline in new orders in the last half of 1953. Moreover, shipments have been steadily exceeding new orders with a resultant sharp decline in new order backlogs. This suggests a further extension of the declining trend of industrial production to bring inventories into line with consumption.

Current economic statistics furnish further evidence of a continued downtrend. Steel operations in January have averaged only about 75% of capacity as against almost 100% a year ago, though it should be noted that an increase in rated capacity accounts for a part of this decline. Railroad carloadings in the first month of this year have declined an average of about 10%; the barometric index of paper board production has finally sagged; and production statistics of base metals, coal, lumber and petroleum are all well below those of the same period of 1953. The effect of a transition to a buyer's market on the fortunes of marginal companies is reflected in the persistent and quite sharp increase in the number of business failures in recent months.

We Are in a Business Recession

There can no longer be any debate about whether we shall experience a business recession. We are in one. This must be taken as the point of departure in any discussion of the outlook and investment policy. What concerns us now is the probable degree and duration of the current decline and its possible impact on investment values.

I hestiate to add my voice to the shrill babel of the prophets regarding the shape of things to come. You can get any forecast that suits your fancy all the way from an early renewal of the boom to the doleful prediction of a major depression. Unfortunately those who are charged with the responsibility of investment management must chart their course on the basis of a carefully considered assessment of reasonable probabilities, both near and long-term.

My own view is that the balance of probabilities is for a relatively mild economic downturn extending at least through the year 1954. I am troubled by the thought that this appears to be the majority opinion though mine is perhaps somewhat more pessimistic than the composite view as to both degree and duration. As related to the longer term outlook I am a confirmed optimist, not only with regard to the course of the economy but more particularly with regard to common stock values, always of course barring disastrous developments in the international sphere.

It seems reasonable to forecast for 1954, a decline in the rate of industrial activity of the order of, but somewhat greater than, that of 1949. The conditions giving rise to the setback at that time are again present but some of the supporting forces which buttressed that decline appear to be less vigorous at this time.

I am currently thinking along the lines of an average level of industrial activity in 1954 as measured by the Federal Reserve Board index about 10% below the average of 1953 and a decline from the 1953 peak to the 1954 low of possibly 16%. The 1948-1949 decline from peak to trough lasted nine months and amounted to about 10%. The 1938 decline, which the current recession does not resemble, was about 34%. An analysis of the major components of the gross national product suggests an average level in 1954 about 6% below that of 1953 and a decline from the high quarter of 1953 to the low quarter of 1954 of perhaps 9%.

Negative Factors in Business Outlook

The negative factors in the business outlook include the following:

(1) A probable readjustment of top-heavy inventory positions. This adjustment has already made its appearance. Whereas inventory accumulation contributed about four billion dollars to the gross national product in 1953, inventory dis-investment of perhaps as much as three billion dollars appears to be a reasonable prospect for 1954, a gross change in this segment alone of about seven billion dollars.

(2) A probable lower level of demand for the products of heavy industry, both consumer durables and capital equipment. The prospect is for a lower output of residential housing, automobiles, television sets and other consumer durables; and expenditures by industry for plant and equipment, which reached a new high level of 28 billion dollars in 1953 and which are scheduled for about the same rate in the first quarter of 1954, seem likely to taper off as the year progresses. As expenditures for durable goods are deferrable, they constitute a strategic element in the general economy.

(3) For the present a moderate further decline in Federal Government expenditures is in prospect.

(4) The current high level of consumer debt might serve to restrict consumer buying with rising unemployment and declining job security, as this debt can be reduced only at some cost to consumer buying. It should be noted here, however, that, despite the high absolute figures, consumer debt is still historically low as related to personal incomes and liquid assets; and the rate of personal savings is high.

In short the expectation of a decline in business activity in 1954 arises principally from the gap represented by a reduced demand for durable goods and cessation of inventory stocking. This gap, however, should amount to only a small percentage of the total production of the country; and it can be narrowed by more aggressive selling, reduced costs and better goods.

There is, of course, another and brighter side of the coin; and the following positive factors in the outlook support the conclusion that what lies ahead is a continuation of the mild rolling readjustment which has now been in process for the past seven months.

(1) The current inventory readjustment should be orderly because of the absence of speculative excesses in the securities and commodities markets, the abundance of capital and credit available for sound business needs, the stimulation of consumer demand arising from reduced taxes and the huge amount of liquid assets in the hands of individuals. The chain reaction of inventory liquidation, to which the pessimists such as Colin Clark refer, have been preceded in the past by excessive speculation and by tight credit conditions which have precipitated a snowballing downward spiral.

There is no evidence of the presence of these circumstances today. On the contrary money conditions are easy as reflected in the sharp rise in bond prices and the reduction in interest rates of the past six months. The prospect is for continued monetary ease for some time ahead. While easy money cannot of itself halt a de-

Continued on page 52

*An address by Mr. Aul before the Rocky Mountain Group, Investment Bankers Assn. of America, Denver, Colo., Feb. 23, 1954.

From Washington Ahead of the News

By CARLISLE BARGERON

Back in the Hoover days there was a group of "progressives" in the Senate who banded together and back-slapped each other, were always on hand when one of them spoke, and in general put on a show that drew far more publicity than the particular speaker's remarks warranted. The late Senator George Moses dubbed them the "sons of the wild-jackass." They developed quite an influence, enough at least to wreck the Republican party for a good 20 years.

Carlisle Bargeron

Today there is a group of "liberals" aping them, trying to gain the niche in public importance held by their predecessors. By comparison, the "progressives" were tame. As a matter of fact, the New Deal came along, at first to absorb them and then go so far to the left, that one by one they dropped away and there is not a one of them in the Senate today.

The two groups had one thing in common, their pettiness. The Progressives would frequently tear out after some unimportant employe, humiliate him and get him discharged. Only recently the "liberals" waged a last ditch fight on a man named to the Federal Communications Commission and one named to the National Labor Relations Board. They even forced the latter to give up a $6,200 retirement he had with a private employer and then continued to fight his appointment.

But it is amusing to see them stage one of their pageantries. There likely won't be another Senator on the floor but when one of them rises to speak, in walk the "liberals" to take seats around the speaker, look at him attentively as if earth shaking words were falling from his lips, and then to shake hands with him when he finishes. They make a speech by one of their number an event.

A recent demonstration was in a way fascinating. It was the speech of young Senator John Kennedy in favor of the St. Lawrence Seaway. The Senator's position on this project was in no way a surprise to other Senators or to newspapermen who cover the Senate. But the "liberal" group made it a "surprise" and a momentous event.

As if by a prearranged signal, Senator Lehman came into the chamber like a bobbing cork and took up a seat just in front of Kennedy. There followed dutifully, and not necessarily in the order named, Senators Green of Rhode Island; Murray of Montana; Aiken of Vermont; Douglas of Illinois; Monroney of Oklahoma; Morse of Oregon, and so on. They formed a cluster around the young man and when he came to the point in his speech of saying he was for the project, their mouths opened wide in sham surprise and admiration. He held a levee on the Senate floor for several minutes after he had concluded.

You might say this was also by way of initiating or accepting young Kennedy into the club. Like the way in which college students seek to pledge new students to their particular fraternities, the "liberals" rush a new Senator. They wine and dine him, take him up to the mountain top and point out to him that the future of the world lies with him; they will be glad to give him guidance. When he was in the House, Young Kennedy went along with the Republicans in the matter of the Taft-Hartley Act. But over in the Senate it has been apparent for a long time that he would wind up with the "liberals."

The "progressives" were not as well supplied with money as the "liberals." They had as patrons the late Senator Jim Couzens, who made millions when he sold out to Henry Ford, and the late Bronson Cutting of New Mexico. Cutting even left a handsome bequest to the two LaFollette boys, Bob and Phil.

But the "liberals" have four millionaires in their group: Lehman, Murray, Green and Kennedy. You can imagine what a catch the latter was for the "liberals."

The master mind of the crowd is octogenarian Green, although Douglas considers himself the intellectual fountain. Green is amazing to me in many ways. At committee hearings I have seen every member asleep except him. He is always wide awake and his questions to the witness waste no verbiage. He goes right to the heart of the question. Douglas' publicity portrays him as a man above the strife, a modern Diogenes. When he speaks it is supposed to be the answer.

But now that he is up for reelection you ought to hear him scream about raising income tax exemptions up to $800 instead of $600. This is considered sure-fire vote getting.

Personal Investment Management Course

FREEPORT, Ill.—The Freeport Chamber of Commerce is sponsoring a course in Personal Investment Management which is being conducted by S. A. Sandeen & Co. of Rockford. A great deal of interest has been evinced in the course which has been running since Feb. 2.

Additional lectures scheduled are:

"New Look in the Science of Investing Money (The Mutual Investment Fund)" — Andrew G. Weeks, Vance, Sanders & Co.—March 9.

"Utility Industry (Gas, Electric, Telephone, Pipe Lines)"—Phillip Coleman, Duff & Phelps, Inc. — March 16.

"Discussion of Various Mutual Funds in the Market"—John Kasbeer, Wellington Fund, Inc. — March 23.

"Facing the Problems of Building an Estate"—Senator Marvin F. Burt—March 30.

"Panel Discussion of Investment Problems"—Open forum—April 6.

The classes meet Tuesdays from 7:30 p.m. to 8:30 p.m.; registration fee $5.

With Carr & Company

(Special to THE FINANCIAL CHRONICLE)

DETROIT, Mich.—Paul A. White, Jr., has become associated with Carr & Company, Penobscot Building, members of the Detroit Stock Exchange.

Dealer-Broker Investment Recommendations & Literature

It is understood that the firms mentioned will be pleased to send interested parties the following literature:

Automobile-Auto Accessory Industry—Report of findings as result of trip through centers of the automobile, automobile accessory and rubber industries—Stern, Frank, Meyer & Fox, Union Bank Bldg., Los Angeles 14, Calif.

Bull or Bear Market?—Comparison of stocks in the Dow Jones industrial average 1949 and 1954—Dreyfus & Co., 50 Broadway, New York 4, N. Y.

Insurance Stocks—Comparative figures for 12 months ended Dec. 31, 1953—Geyer & Co., Incorporated, 63 Wall Street, New York 5, N. Y.

Investment Opportunities in Japan—Circular—Yamaichi Securities Co., Ltd., 111 Broadway, New York 7, N. Y.

Machine Tool Industry — Data with particular reference to **Niles-Bement-Pond**—Stanley Heller & Co., 30 Pine Street, New York 5, N. Y.

Municipal Bonds—Bulletin—New York Hanseatic Corporation, 120 Broadway, New York 5, N. Y.

New York City Bank Stocks — Year-end comparison and analysis of 17 bank stocks—Laird, Bissell & Meeds, 120 Broadway, New York 5, N. Y.

Over-the-Counter Index—Folder showing an up-to-date comparison between the listed industrial stocks used in the Dow-Jones Averages and the 35 over-the-counter industrial stocks used in the National Quotation Bureau Averages, both as to yield and market performance over a 13-year period—National Quotation Bureau, Inc., 46 Front Street, New York 4, New York.

Public Utility Common Stocks—Comparative figures—G. A. Saxton & Co., Inc., 70 Pine Street, New York 5, N. Y.

Pulp Industry in Japan—Analysis in current issue of Nomura's Investors Beacon—Nomura Securities Co., Ltd., 61 Broadway, New York 6, N. Y. Also in the same issue are analyses of the **Electric Wire and Cable Industry and Spinning Industry** and discussions of **Investment Trusts in Japanese Economy** and current foreign trade.

Railroad Income Bonds—Comparison for 1953—Vilas & Hickey, 49 Wall Street, New York 5, N. Y.

Supermarkets—Bulletin—Ralph E. Samuel & Co., 115 Broadway, New York 6, N. Y.

* * * *

Aluminium Limited—Data—Ross, Knowles & Co., 330 Bay Street, Toronto 1, Ont., Canada. Also available are data on **Bell Telephone Co. of Canada, General Dynamics Corporation, General Motors Acceptance Corp. of Canada, Ontario Jockey Club Ltd, Canadian Investment Fund,** and **Power Corporation of Canada Ltd.**

American Enka Corporation—25th Annual Report—American Enka Corporation, 206 Madison Avenue, New York, N. Y.

Attapulgus Minerals & Chemicals Corp. — Report — Troster, Singer & Co., 74 Trinity Place, New York 6, N. Y.

California School District Bonds — Analysis — Kaiser & Co., Russ Building, San Francisco 4, Calif.

Continental Baking—Memorandum—Hirsch & Co., 25 Broad Street, New York 4, N. Y. Also available are memoranda on **Tennessee Gas Transmission** and **Sunray Oil.**

Continental Casualty Company — Analysis — William Blair & Company, 135 South La Salle Street, Chicago 3, Ill. Also available is an analysis of **Continental Assurance Company.**

Cross Company—Bulletin—Grimm & Co., 44 Wall Street, New York 5, N. Y.

Detroit Edison Company—Annual Report—Treasurer, Detroit Edison Company, 2000 Second Avenue, Detroit 26, Mich.

Eastern Industries, Inc.—Bulletin—deWitt Conklin Organization, 100 Broadway, New York 5, N. Y.

Electric Bond & Share Co.—Review—Sutro Bros. & Co., 120 Broadway, New York 5, N. Y. Also available is a review of **Western Pacific Railroad Co.**

Foote Burt Company—Analysis—Aetna Securities Corporation, 111 Broadway, New York 6, N. Y. Also available is a memorandum on **Lea Fabrics, Inc.**

Foremost Dairies, Inc.—Memorandum—Paine, Webber, Jackson & Curtis, 25 Broad Street, New York 4, N. Y.

International Telephone & Telegraph Corp.—Memorandum—Herzfeld & Stern, 30 Broad Street, New York 4, N. Y.

Lynchburg Foundry Company, Inc.—Analysis—Strader, Taylor & Co., Inc., Peoples National Bank Building, Lynchburg, Va.

Marathon Corp.—Memorandum—Smith, Barney & Co., 14 Wall Street, New York 5, N. Y.

Maysville, Ky. General Obligation Floodwall Bonds—Bulletin—Stein Bros. & Boyce, Starks Building Arcade, Louisville 2, Ky.

Metropolitan Life Insurance Co.—Annual Report—Metropolitan Life Insurance Co., 1 Madison Avenue, New York 10, New York.

Minute Maid Corporation — Analysis — Nauman, McFawn & Company, Ford Building, Detroit 26, Mich.

Missouri Pacific—Analysis of reorganization plan—H. Hentz & Co., 60 Beaver Street, New York 4, N. Y.

New York Central Railroad Co. — Memorandum — Wm. M. Rosenbaum & Co., 285 Madison Avenue, New York 17, N. Y.

Noranda Oil Corp.—Progress Report—B. S. Lichtenstein and Company, 99 Wall Street, New York 5, N. Y.

Ohio Oil Co. — Memorandum — Hemphill, Noyes & Co., 15 Broad Street, New York 5, N. Y.

Chas. Pfizer & Co. — Brief analysis in the current issue of "Gleanings"—Francis I. du Pont & Co., 1 Wall Street, New York 5, N. Y. Also in the same issue is a brief analysis of **American Airlines** and a list of **Quarter Century Dividend Payers.**

Public Service of New Hampshire—Review—Ira Haupt & Co., 111 Broadway, New York 6, N. Y.

Puget Sound Power & Light Corp.—Analysis—Ira Haupt & Co., 111 Broadway, New York 5, N. Y.

Radio Corporation of America—7-Page Analysis Plus Current "Investment Report"— $2.50—Dept. R-K, Arthur Wiesenberger & Company, 61 Broadway, New York 6, N. Y.

Remington Rand, Inc.—Analysis—Van Alstyne, Noel & Co., 52 Wall Street, New York 5, N. Y.

Riverside Cement Company—Analysis—ask for report T-31—Lerner & Co., 10 Post Office Square, Boston 9, Mass.

Scott & Williams, Inc.—Analysis—May & Gannon, Inc., 161 Devonshire Street, Boston 10, Mass.

Seaboard Air Line Railroad Company—1953 Annual Report—W. F. Cummings, Secretary, Seaboard Air Line Railroad Company, Norfolk 10, Va.

Silverwood Dairies—Bulletin—R. A. Daly & Co., 44 King Street, West, Toronto, Ont., Canada.

Snyder Tool & Engineering Co.—Card memorandum—Baker, Simonds & Co., Buhl Building, Detroit 26, Mich.

Tele-Trip Policy, Inc.—Circular—Heimerdinger & Straus, 50 Broad Street, New York 4, N. Y.

U. S. Steel Corp.—Memorandum—Coffin & Burr, Incorporated, 60 State Street, Boston 9, Mass.

COMING EVENTS

In Investment Field

Apr. 29-30, 1954 (St. Louis, Mo.)

St. Louis Municipal Dealers Group annual outing.

May 7, 1954 (New York City)

Security Traders Association of New York annual dinner at the Waldorf-Astoria.

May 9-11, 1954 (Dallas, Tex.)

Texas Group Investment Bankers Association 19th Annual Meeting.

May 12-14, 1954 (Boston, Mass.)

Board of Governors of Association of Stock Exchange Firms meeting.

May 16-20, 1954 (Chicago, Ill.)

National Federation of Financial Analysts Societies Convention at the Palmer House.

June 9-12, 1954 (Canada)

Investment Dealers' Association of Canada Annual Convention at Jasper Park Lodge.

June 11, 1954 (New York City)

Municipal Bond Club of New York 21st annual outing at Westchester Country Club and Beach Club, Rye, N. Y.

Amendments to SEC Laws OK'd by Senate

New measure would exempt new security issues under $500,000 from SEC regulation, and makes it easier for securities salesmen to make available information about a new issue before effective date of registration.

On March 2, the U. S. Senate, on a calendar call, without being brought to vote passed a bill providing for amendments of Securities and Exchange Acts.

The bill raises from $300,000 to $500,000 the amount of new securities issues exempt from full Securities and Exchange Commission regulation.

It also makes a number of other minor liberalizing changes in the securities laws. Besides raising the exempt issue limit, the bill would also make it easier for securities salesmen to make available information about a new issue before the effective date of registration.

During a calendar call a bill is passed simply by number providing no Senator objects. The lack of opposition indicates easy passage of the measure in the House.

McCleary Announces Formal Opening

ST. PETERSBURG, Fla. — McCleary & Co., Inc., member of the New York Stock Exchange, has announced the formal opening of its office at 556 Central Avenue. The new firm is successor to the Florida Securities Co.

Two With Sutro Co.

(Special to THE FINANCIAL CHRONICLE)

SAN FRANCISCO, Calif. — Robert S. Borovoy and John W. Shaw have become associated with Sutro & Co., 407 Montgomery Street, members of the New York and San Francisco Stock Exchanges.

Arnold Feldman Co. Formed in New York

The formation of the new investment firm of Arnold Feldman Company, to be located at 120 Broadway, New York, was announced March 1.

Arnold Feldman

Mr. Feldman, the principal, has been connected with the investment business since 1920. He was in part responsible for forming Vought & Co., later becoming its President. Recently, he had been with Stieglitz & Co., for almost two years as a general partner.

$37 Million Issue of W. Virginia Turnpike Bond Financing Near

By EDWIN L. BECK

Bear, Stearns & Co. and Byrne and Phelps are negotiating the sale of $37,000,000 West Virginia Turnpike bonds and present indications are that the offering will be made March 8.

The issue is dated March 1, 1952, will mature December, 1989, and is in addition to the original offering of $96,000,000 3¾% sold about two years ago and is of the same series. The bonds are tax exempt.

Additional funds from the sale of the $37,000,000 issue are to be used to complete the 88-mile project which cuts through the heart of the rugged West Virginia mountains providing a high speed traffic artery with maximum grades of less than 5%. Opening is set for Aug. 1, this summer.

Factors responsible for increased construction costs were unforeseen earth and rock slides, growing costs of right of way, additional costs of basic material removal preparatory for later four-lane building, and litigation

The additional issue of bonds is secured wholly from tolls and other revenues from operations.

This newest toll turnpike will be the first link in a north-south traffic artery from the central Great Lakes area through Ohio, West Virginia, Virginia and North Carolina to the rich Piedmont area of the Carolinas, Georgia and Florida.

Enabling legislation is in process in Virginia for a turnpike commission in that State, and North Carolina and Ohio are legally in position to build connecting thruways.

The badly needed north-south turnpike seems at last to be emerging from the dream stage into a fast-approaching reality under the leadership of West Virginia.

A Correction on Views Of Girard L. Spencer On Int. Rate Trend

In the article on the "Supply and Demand for Investment Funds during 1954," in the issue of the "Chronicle" of Feb. 25, on page 10, it was stated in the headline section that Mr. Girard Spencer, the author, saw "little prospect of any lowering of interest rates." This is an error, as Mr. Spencer's statement was that his figures indicate there is "little prospect of any increase and a distinct possibility of a further lowering in the level of interest rates."

Color Television

By E. A. HOLSTEN*

General Merchandising Manager, Motorola, Inc.

Predicting color in television will come late in 1955, and will be used along with the present black-and-white system, Mr. Holsten describes the technique of color television and reveals color television problems from standpoint of both manufacturer and broadcaster. Mentions high costs today of color television sets, and points out television broadcast's need of trained mechanics to do the servicing. Foresees great expense of commercial color television limiting programming and concludes programs will emanate mainly from New York and Hollywood.

During the last couple of months, you have probably read most of the articles in the trade press and public press on color television and probably many of them have developed some confusion in your minds because you have had no actual operating experience of color with which to compare.

We realize also that from now until the time that you actually have color sets operating in your territories, you will have to answer many questions for your customers and we want you to have all the information possible to answer them correctly.

We are confident that Motorola occupies a very strong engineering position in this new color art. We have been working intensely on color since early 1949 and in April, 1950 we installed and began operating the first flying spot color scanner in the industry (other than RCA).

A color scanner is a very large piece of equipment that transmits color pictures and test patterns for use in the laboratory.

During the entire period that the compatible system was being developed, evaluated, and field tested by NTSC, Motorola engineers were members of every important committee and participated in every field test conducted.

Motorola's performance was also among the best at the FCC showing in New York last October, so Motorola engineering is well prepared to meet this new challenge of color television.

New Terms Used in TV

With the coming of color TV, you will begin to hear many new terms that you have never heard before and they may sound very mysterious to you at first, but they are all quite descriptive and should be helpful in understanding the color business a little better. Let's run down through some of them.

Red, Blue and Green Gun: These are merely designations of the position of each one of the electron guns that are located to form a triangle in the neck of the tube.

Each gun shoots the same kind of electrons at the screen, but they are so controlled that those coming out of a given gun only hit one color of phosphor dots on the screen and cause it to light up in one of the three primary colors, red, blue or green.

Therefore, the color exists only in the phosphor and the guns could just as easily be designated No. 1, 2 and 3, or A, B, and C.

Aperture Mask: This is a perforated metal plate or screen, located between the guns and the phosphors with the holes geometrically positioned as related to the phosphor dots, so the electrons from the red gun can only strike red phosphor dots, the electrons from the green guns the green dots, electrons from the blue gun the blue dots.

Color Plate: This is a flat glass plate positioned about one-half inch forward from the aperture mask and having the red, blue and green phosphor dots applied to it in regular geometric patterns.

Triads: A triad consists of three dots of phosphor; namely, red, blue, and green, positioned in a triangle, and this pattern is repeated all over on the color plate. A single triad of dots is called one picture element.

Three Gun Tube: This indentifies the type of color tube where three guns are used instead of one.

Color Pack: This identifies the mechanical assembly of the color plate, the aperture mask and the frame which supports and properly separates them and this whole assembly is finally placed inside of the color tube.

Focus Mask: This is a type of mask that is used as a part of the color pack in the Lawrence type of tube which I will discuss later.

Monochrome: Now that we have color we are using this term to identify the type of set that we used to call a black and white set, or a black and white transmission.

Chroma: Chroma in a color set is the relation of the primary colors to each other and to the shades of gray as we have observed them in the past on a black and white, or monochrome receiver.

Color Fringing: This is merely mis-registry of the colors and it shows up in a similar fashion to mis-registry of colors in printing such as in the Sunday color supplements of the newspaper as you have all observed.

It is usually more noticeable around one edge of an object in the picture than in the center of the object itself.

Color Saturation: This is the amount of each one of the primary colors that is used in the picture. For example, if you have an object showing a true red and the exact red of the primary color, you would have the greatest degree of red saturation; the same in the green, or blue.

But to get all of the other colors in the spectrum and delicate mixtures of them such as in flesh tones, the three primaries are diluted and mixed to accomplish that color or tone, therefore, their degree of saturation is reduced.

Dynamic Convergence: Since in a three gun tube, each gun is supposed to light up only its respective color of phosphor dots, it must be focused accurately and individually.

Then, after that the beams of all three guns have to be converged on the same hole in the mask, so that all colors come out true in each triad, or picture element, and so that when you are viewing a monochrome, or black and white transmission on a color receiver that it remains essentially black and white and does not get into weird shades of greens, purples, red, etc.

Because the convergence angle is constantly changing as the beam sweeps across the face of the tube, it has to be corrected electrically, therefore, the term dynamic convergence.

This simple glossary of terms that you will be hearing and using more and more as you move into color will help you in analyzing and discussing color pictures and picture tubes. There, of course, are many, many more, but we can leave most of the others to the servicemen and engineers; at least for the time being.

Types of Color Television

And now with the help of these terms, I would like to give you all the information I can on the new color picture tubes.

There are three important types that are known today.

The first is the RCA three gun tube which you have heard the most about.

The second is the CBS-Hytron three gun tube.

The third is the Lawrence, or sometimes called the chromatron tube.

Each of these three tubes at the present time has some good points, but unfortunately each one of them also has some very serious problems connected with it.

No single one of the three has such a high ratio of good points to bad as to completely outshine the other two, and probably for the next several months you'll be hearing and seeing a lot of publicity put out by the exponents of each, and particularly since you will be seeing all three types in color receivers introduced on the market.

Of the three, we feel that the RCA type of color tube shows the greatest immediate promise, primarily because it will be in the best supply during the first half of 1954. I'd like to discuss these tubes in greater detail with the help of some slides.

On the upper part of this slide you see a simple diagram of how the RCA tube works and below it a cross section of the tubes. Its major elements consist of three electron guns, an aperture mask, and the color plate.

As you will observe in the diagram, three guns are assembled in a triangular cluster and shoot their beams through the holes in the aperture mask to illuminate the tiny dots of phosphor on the color plate.

These color dots are arranged in a triangular pattern, or triad, consisting of a red, blue and green dot and this pattern is repeated continuously over the entire picture area. There are about 200,000 holes in the aperture mask and the same number of triads consisting of three dots each, or 600,000 color dots.

This means that if you could place your eye in the same position as the red gun and look through the aperture mask, you would see nothing but red phosphor dots with the blue and green dots being shadowed, or masked by the metal screen.

If you then moved your eye to the position of the green gun, you would see only green dots, and the blue gun, blue dots.

Since all other colors in the spectrum can be developed by combinations of the three primary colors, and since brightness which is the other important consideration can be accomplished by increasing the number of electrons emitted from any gun, at any instant, the two in combination can develop a full color picture that is pleasing to the eye.

At the bottom of the slide, the cross section view shows the relative position of the aperture mask and color plate assembled together to make the complete color pack, and the general relationship of it to the tube face and the rest of the tube envelope.

The RCA type of tube has the characteristic of good definition, or resolution, and, therefore, has the ability to reproduce extremely fine detail in pictorial composition; and even though it is an extremely difficult tube to manufacture, they have had enough of a head start on the other fellows so that their type of tubes are in greater supply today than any other.

Along with these good qualities, there are some that can be considered bad. For example, the color pack is a heavy, complicated assembly, weighing six pounds and it has to be assembled with an unusual degree of mechanical accuracy. It is located well behind the front face of the tube and, therefore, the viewing angle is restricted. Also, there is a lot of space consumed in the tube with this big mechanical structure and the picture area is the equivalent of a 12½ inch monochrome tube, yet the envelope required is 15 inches in diameter.

All of these things make for a very high manufacturing cost, at least in its present stage of production.

The next tube is the one recently announced by CBS-Hytron. This tube uses exactly the same basic theory of operation as the RCA type of tube; in fact, it is designed to be completely interchangeable with it. The greatest difference is exhibited in the internal structure as is shown on the cross section view of it.

The same three gun structure is used, but the aperture mask is die formed into a pillow shape which even though it is very thin and fragile, develops rigidity through the curvature just as an egg shell does, and the heavy color plate is completely eliminated because CBS has developed a process of applying the little triads of phosphor dots to the inner face of the tube—so that the picture appears on the tube face just as it does on today's monochrome tubes.

This also permits a slightly larger picture as they have some quarter of a million aperture holes

Continued on page 40

*A talk by Mr. Holsten before a group of retail radio and television dealers, Houston, Texas, Jan. 21, 1954.

The Shape of Things to Come

By CLIFFORD F. HOOD*
President, United States Steel Corporation

Asserting "our prospects are good," executive of largest steel producer points to an abundance of the raw materials out of which leadership can fashion the shape of things to come. Reveals construction program of U. S. Steel Corporation and looks for increase in national population as factor in expanding our economy. Cites great construction projects in nation as basis for continued business activity. Finds new encouragement to free enterprise and business initiative. Calls for cooperation, not conflict, between labor, management and capital, and refers to attempted nationalization of the steel industry "as a Socialistic scar."

United States Steel is a producer and fabricator of steel, and I would be a poor salesman, indeed, if I did not mention this to an assemblage that represents the largest user of steel in the nation. We have some important operations here on the West Coast which are performing an outstanding job in keeping pace with the expansion and development of the West. There is no characteristic inherent in man that receives wider expression than the desire to build. That is why I looked forward to this opportunity to talk to America's Associated General Contractors. Some of us follow occupations in manufacturing, merchandising and servicing, others pursue the professions or arts. But all of these fall within the category of what might be called acquired characteristics, which are trained into us or fit our individual personalities. In the sphere of construction, however, a person can give expression to the oldest instinct to be found in man—the desire to build. It is not essentially an acquired trait. It has been a part of man from the beginning. In the second generation of man, Cain became the first contractor when he built the first city. Many wonders have appeared in succeeding ages—the pyramids, the Colossus of Rhodes, the Aqueducts of Rome. Today, the art of building has reached its apex in this nation.

Clifford F. Hood

Many of us here who were youngsters at the turn of the century will recall the simple A B C building blocks that were familiar to every household. The buildings, the bridges and the castles that took shape on America's parlor floors in those days merely foretold an age to come—and it is here with us now in an array that somehow astounds the builders themselves, even more than their first, uncertain, childlike creations.

This performance will be repeated over and over again. Today's erector sets, and scale-model construction equipment might turn youngsters of another generation to tomorrow's engineering and construction accomplishments. The boy who constructs a bridge or a building on the living room floor today may well be constructing an atomic reactor tomorrow, or the lad who digs a road in the flower garden this summer, may well be laying highways across the nation in some not-too-distant summer.

Actually, despite the wonders and so-called culture of the past, the world had seen little of what was possible on a highly concentrated basis until we started to move ahead in this nation.

There is something inherent in the American mind, I believe, that makes us inquisitive as well as constructive. Some years ago, we read an account of an American who was visiting in Switzerland. Sitting in the lobby of his hotel one evening, he watched an Austrian boy who was attracted to a large piano off in the corner of the room. The boy's first action was to sit down and pick out a simple melody on the keyboard. An American boy, hearing the notes of the piano, was attracted in the same direction. But as the author of the story watched, the American boy's first interest was not in the keyboard. Instead, he lifted the top of the piano to see what "made it tick."

But what will all this imaginative ability and know-how mean in the future. What will the coming generation accomplish, with all their technology and technical skills unless they work in an atmosphere that is economically and politically favorable. This, gentlemen, is the great question confronting us.

The construction industry has just completed the biggest year in its history. We all know that you are mighty proud of the fact that you contributed more than $34 billion worth of activity in new construction alone to the national economy last year. But 1953 is history. Its graphs, trends and results have been recorded, and while the records may have been outstanding by most standards, they remain merely a measure of what was accomplished.

In many respects, therefore, the past is prologue to the immediate present and future. Some of last year's accomplishments were due no doubt to a basic change in the economic atmosphere. And this should result in the infusion of new spirit in the leadership forces of the nation.

For the present, however, we have the economic momentum of large capital investment in new plants and equipment. There are indications that projects now underway or ear-marked for the future will triple the toll road system of the United States. Expenditures by industry and government for research will continue to be high, but the brightest picture centers around the estimates of construction contract awards for the coming year. These indicate another $34 billion expenditure, and if the estimators are off in their calculations as they were is 1953, this figure could well approach $36 billion.

Our Prospects Are Good

In other words, it might be said that our prospects are good. At

Continued on page 53

*An address by Mr. Hood at the 35th Annual Convention of the Associated General Contractors of America, Inc., Los Angeles, Cal., March 1, 1954.

The Canadian Economy in 1954

By DOUGLAS SEAMAN COLE*
Consul General of Canada, Chicago, Ill.

Stressing Canada's rise in the economic scale as an independent nation, Mr. Cole discusses: (1) reasons for present enormous expansion in the Canadian economy; (2) the existing situation, and (3) the future outlook for Canadian economy. Holds Canada's decisions in respect to fiscal and monetary policies have worked out satisfactorily, and Canadian Government favors reducing international trade barriers. Lays present premium on Canadian dollar to: (1) continued inflow of U. S. capital, and (2) policy of U. S. parent companies to reinvest subsidiaries' profits in Canada. Concludes Canada's future progress depends largely upon retention of a flexible, adaptable economy, with efforts to enlarge trade with United States and other countries.

In terms of history, it is but a very short time since it was popularly considered in the United States that Canada was a dependency of Great Britain, populated to some degree by Indians and Eskimos, protected by the Royal Canadian Mounted Police who always got their man, the home of the Dionne quintuplets, and with local color consisting of trappers on snowshoes living in the dreary land of the midnight sun. Certainly many movies produced in Hollywood in the past decade would give some credence to this viewpoint. Nevertheless, the truth of the matter is that slowly but surely Canada is becoming a land of tremendous agricultural, mineral and industrial wealth, populated by 15 million people of diverse races who have by their own efforts moulded themselves into a nation.

Douglas S. Cole

In the early days of Canada's nationhood, at the time of Confederation, a Canadian economist described my country as an artificial contrivance put together in defiance of geography and economic interest and kept together by perverse stupidity of a people who refuse to recognize realities. If one be fond of alliteration, it is a victory of mind over matter and a triumph of heart over head. Today, the gawky youngster towards the north, with the problems of youth still present but with the new-found confidence of imminent maturity, has emerged by virtue of his own efforts to be greeted with international recognition abroad almost sooner than by Canadians themselves. For Canadians, on the whole, are a very conservative people and many of them would probably agree with Harold Laski's wonderful, but unkind, definition of a true liberal as a man who has both feet firmly planted in mid-air. But we have still the problems of a growing youth— a youth with French blood in his veins, brought up by British parents, strongly influenced by the big boy next door to the south, and trying to reach manhood without a split personality. When he does reach it, he is generally a bilingual Canadian, speaking English with what you would describe as a Midwest accent.

The Aspects of Canada's Economy

For reasons of brevity and clarity, I shall break down this thumbnail talk on the Canadian economy into three parts:

(1) The reasons for the present enormous expansion of the Canadian economy.

(2) The existing economic situation in the spring of 1954.

(3) The future of Canada.

(1) The Reasons for the Present Enormous Expansion of the Canadian Economy.

With regard to point (1), as to what lies behind this great forward surge of Canadian national output and development, much of which is known to you, I would say that in a sense it was inevitable and only awaited a favorable conjuncture of events. The potentialities were in my country from the beginning, as was recognized by Sir Wilfrid Laurier, one of our most distinguished Prime Ministers, when he predicted many years ago that the twentieth century would be Canada's century.

The Second World War gave the initial push forward along the road to industralization. Contrary to pessimistic forecasts, postwar demands, both at home and abroad, sustained the economy at a high level of activity. Before the postwar period of reconstruction and reconversion had ended, discoveries were made of vast resources of oil, iron ore, uranium, nickel and other minerals. Then came Korea and the consequent rearmament effort that created urgent new demands for many of the essential materials produced by Canada and that made it necessary to establish important new industries to meet the defense needs of the free world.

While under these conditions, Canada was bound to advance, I suggest to you that it is necessary to look deeper for the full explanation of the remarkable progress that has been made. There was more to it than a favorable set of circumstances. The Canadian people have held a good hand of cards, but in my judgment they have also played them well.

I say this because I believe that there are some lessons to be learned from our recent experience which may be useful for the future.

I would underline that these great advances in material well-being have been attained within a framework of free enterprise and free competition. Much is made by Communist countries of their five-year plans. Because of the Iron Curtain, none of us knows what has actually taken place in those countries. But I would stake my reputation that they have not surpassed the records established by Canada, where people make their own plans within the limits of the law.

These terms "free enterprise" and "competition" are hackneyed phrases. I use them at this time because I believe that they do describe pretty accurately the sort of conditions that have prevailed in Canada in recent years. I might express the point I have in mind in another way. The expansion of this country has not been directed by governments. It is not the result of subsidies or artificial stimulation. It is not of the "hothouse" variety, hiding behind new trade barriers and unable to meet world competition. On the contrary, it is the result, in the main,

Continued on page 60

*An address by Consul General Cole at the World Trade Conference of the Chicago Association of Commerce and Industry and the Export Managers Club of Chicago, Chicago, Ill., Feb. 23, 1954.

Current Recession More Serious Than Inventory Trimming

By EDWIN G. NOURSE*
Formerly Chairman, President's Economic Advisers

Former Economic Adviser to the President holds present recession is much more fundamental than mere inventory trimming; that adequate grounds do not exist for counting on a second- or third-quarter recovery, and that remedies against further downturn, though impressive, are as yet unproven and quite difficult of application. Reviews conditions leading up to present situation, and says what is now required is "Operation Big Switch." Holds shortcoming of President's Economic Report is that it is devoted primarily to Government fiscal and monetary policies, and not to price-making, wage-paying, merchandizing effort, investment programs, and maintenance of consumer buying.

I wish to preface my comment on the Economic Report proper by making a brief observation about Appendix D. which is the text of Reorganization Plan No. 9, sent to the Congress from the White House on June 1, 1953. In this message (p. 135 of the Economic Report), President Eisenhower refers to the Employment Act of 1946 as reflecting the "determination of the Congres to help develop a strong economy in the United States"—strong because it is a free economy, a stable economy, an expanding economy, and a humane economy. Thereupon the President continues, "I believe in the basic principles of the Employment Act, and it is my purpose to take the appropriate actions to reinvigorate and make more effective the operations of the Council of Economic Advisers. Our needs for proper advice on economic matters are equaled only by our needs to have the very best advice and planning on matters of national security."

Edwin G. Nourse

I think I may speak for the economics profession in expressing gratification over this decision, the outstanding qualifications of the persons selected by the President for this reconstituted Council of Economic Advisers, and the high professional quality of the President's report to which they have made the major contribution. I could easily spend the whole of my alloted time in praise of its workmanship and in underscoring points made in it which I believe are sound and important.

But the purpose of these panels organized by the Joint Committee is, as I understand it, to take a fresh and independent look at the economic situation of the country and means of strengthening it and particularly of getting as full consideration as possible of alternative interpretations and emphases. "In a multitude of counsellors, there is wisdom."

I turn, therefore, to the substance of the President's Report itself. Its message to the Committee, the Congress, and the country may be briefly summarized in three categorical statements: (1) The economy is essentially sound and at the present time is undergoing only a mild inventory adjustment. (2) The foreseeable trend of this adjustment gives reasonable hope of its completion within a very few months and a resumption of high-level prosperity and vigorous economic growth before the end of the present calendar year. (3) If a trend toward more serious recession, not now foreseeable, should develop, the Administration has adequate means of stopping or reversing such a trend, has an understanding of how to make these recovery measures effective, and has a determination to use such means promptly and vigorously.

The Recession Is Not Merely Inventory Trimming

In a spirit of completely nonpartisan economic analysis, I shall undertake to raise some issues which seem to me to be involved in these three propositions and to suggest some qualifications which I believe should have the thoughtful consideration of this committee. I suggest (1) that the economic readjustment begun in the latter part of 1953 is much more fundamental than mere inventory trimming, (2) that we do not have adequate grounds for counting on a second- or third-quarter recovery, and (3) that remedies against further downturn though impressive are as yet unproven and quite difficult of application.

(1) I subscribe fully to the proposition that our economy has resources of almost fabulous richness and that our long-run prospects are indeed bright. It seems to me evident also that our economy is basically sound, freed of many weaknesses that existed in 1929, and with important built-in stabilizers like unemployment insurance, bank deposit (and mortgage) guarantees, and farm price supports. But these are at best pills and poultices. The maintenance of full health and economic vigor depends on the basic metabolism of the body economic or the balance between our capacity to produce and our ability to distribute that product in the commercial market. The fact that an inventory problem made its appearance in 1953 indicates that productive capacity had begun to outrun the purchasing power of consumers even at a time of very full employment, high wages, farm incomes only moderately down, and quite liberal dividends and proprietors' profits seems to me to indicate that the real trouble lies somewhat deeper than the statistical surface where inventories are counted.

Some business commentators support the President's view that this is only a "rolling adjustment" of slightly unbalanced inventories. They point with pride to the economic sophistication of present-day managers who have not allowed massive accumulations of excess stocks but have proceeded promptly to trim orders and operating schedules to the realities of the supply and demand situation. But this prudent correction of the dealer's, the manufacturer's, or the supplier's position entails the dropping of double shifts, discontinuation of overtime, shortening of the work-week, and some layoffs. The possibility of this process engendering further inventory cutting to still smaller sales is fleetingly noted in the President's Economic Report, but this does not move its authors to any attempt to appraise the attained productive capacity of our enlarged and improved agricultural, commercial, and industrial plant *vis-a-vis* the absorptive power of the market.

It must be evident, however, that present inventories have emerged from this relationship. The schedule of farm prices, Government-supported under the Steagall Amendments and part of the 1948 and 1949 Agricultural Acts, have revealed, if they did not create, a productive capacity in dairying that has already accumulated a surplus of one billion pounds of dairy products. Wheat,

Continued on page 50

*A statement by Dr. Nourse at the panel discussion covering the general appraisal of the economic outlook and the President's economic recommendations, Washington, D. C., Feb. 18, 1954.

How to Stabilize Purchasing Power Income From Foreign Loans

By DANIEL K. ANDREWS
Assistant Professor, Department of Commerce and Economics, University of Vermont

Dr. Andrews proposes a plan under which foreign loans are to fluctuate with price indices; from the creditor's viewpoint to fluctuate with an index of his nation; from the debtor's viewpoint to fluctuate with an index of his nation. If exchange rates between the two countries involved do not conform to purchasing power parity of each country, the creditor's government and the debtor's government would jointly share the loss or gain.

The report of the Randall Commission on Foreign Economic Policy is current evidence that promotion of capital exports is official United States policy. By a majority of nearly two to one, the commission recommends a continuance of the present guaranties against expropriation and against inconvertibility of exchange, and it proposes, furthermore, a revamping of our tax structure to provide additional incentive to invest abroad.

D. K. Andrews

Though it may be granted that the commission's desire to promote capital exports is a worthy one, and that its recommendations work in the right direction, whether these recommendations go far enough is open to question.

The program of guaranties could be expanded in such a way as to virtually eliminate from the field of international finance, so far as private creditors and debtors are concerned, what might be called the purchasing power risk: the risk, from the standpoint of a creditor, that what he is repaid will be worth less in terms of purchasing power than what he had lent; and the risk, from the viewpoint of the debtor, that what he must repay will be worth more, in terms of purchasing power, than the amount he had received.

If the purchasing power of foreign loans were stabilized in such a way as to eliminate this risk, it seems probable that many potential lenders would be willing to enter the field of foreign lending who now prefer the relative safety of domestic loans, and more foreign borrowers might be found. In short, more capital exports would result. The following proposal is offered in the hope of achieving this objective.

The Essence of the Purchasing Power Plan

The essence of the plan is simple. Any monetary amount can be tied to a price index, rising as the index rises, falling as it falls. The purchasing power plan for foreign loans would tie the loan to two price indices, one in the nation of the creditor and one in the nation of the debtor.

This would mean that, from the viewpoint of the creditor, the monetary value of the loan expressed in monetary units of his country, would rise or fall *pari passu* with the index of his country. From the standpoint of the debtor, the monetary value of the debt, in the debtor's currency, would change proportionately as the index of his country changes.

It would make no difference to either the debtor or the creditor whether the debt contract be expressed in terms of the monetary unit of the creditor's country or the unit of the debtor's country, but probably a protected contract should not be expressed, under present world conditions, in terms of the monetary unit of some third country.

The plan is complicated by the fact that foreign exchange rates cannot be assumed to conform invariably to the purchasing power parity theory, and, if they do not, a debtor may be called upon to turn over to the creditor more or less purchasing power, measured in terms of the monetary unit of the debtor's country, than the creditor receives, measured in terms of the unit of account of the creditor's nation.

It follows, then, that some institutional arrangement must be created to bear the loss, if the creditor is to be able to get more than the debtor pays, and to garner the gain, if the debtor pays more than the creditor receives.

Some international scheme might conceivably be worked out, the member national governments sharing the gains and losses according to prearrangement. But the purchasing power plan need not necessarily wait to be implemented by some international organization, for the protection could rest quite simply and effectively merely upon bilateral arrangements.

Any two nations could agree to give purchasing power protection to loans made by a citizen of one of the two nations to a citizen of the other of the two nations. The national governments involved would share equally any gain ensuing upon repayment of a registered loan, just as they would jointly share a purchasing power loss.

Such a plan would *not* insure against the credit risk. It would merely give assurance that if a debtor lived up to his promise to repay a certain amount of purchasing power, then the creditor would be sure that he in turn would receive a stipulated amount of purchasing power.

Hypothetical Example of Plan In Operation

Under conditions in which foreign exchange rates are fixed, it would be a fairly simple matter to put the purchasing power plan into effect. It is completely unnecessary, however, to assume stable rates, and therefore, in the hypothetical example which follows, the more complex situation of fluctuating exchange rates will be postulated.

We shall assume that the plan is in operation and that a citizen of Country X borrows $1,000 from a citizen of the United States. The unit of account in Country X is the x-unit, corresponding to our dollar. When the loan is made, one x-unit equals $0.05 on the foreign exchange market, which means that the debtor has received 20,000 x-units.

Under the terms of the hypothetical loan, two units of purchasing power will grow into three by the time the loan matures and is repaid with accumulated interest. Assuming the relevant price indices are the same when the loan matures as when it was negotiated, the citizen of Country X would owe 30,000 x-units, and the American would receive $1,500, regardless of what had happened in the meantime to the rate of exchange.

But now let us assume that the index of Country X is half of what it was at the beginning, while the American index is twice what it was. The American would then receive $3,000, and the debtor would repay only 15,000 x-units.

Exactly how much the American and Country X governments would lose or gain would depend on the rate of exchange that happened to prevail when the loan matured. Suppose the x-unit to be worth $0.25 at that time. Then the 15,000 x-units would be worth $3,750, of which the American creditor would, as stated, receive only $3,000; in other words, only 12,000 x-units would go to the creditor, for it would take only that many x-units to give him $3,000. Half of the 3,000 x-units remaining from the 15,000 x-units would go to the government of Country X and the balance would go to the American government, which would sell its x-units on the exchange market for $375, which is half of $750, the excess amount paid by the debtor over the amount received by the creditor.

Only if the rate of exchange should correspond to purchasing power parity would the interested governments neither gain nor lose. If, as in the example above, the rate should be more than the parity rate, the governments would gain, whereas if it were less than that amount (for example, if the x-unit were worth only $0.15 instead of $0.25 at the time the loan was repaid) the two governments would have a loss to bear jointly.

Costs of the Plan

To enter into bilateral agreements with other nations to put the purchasing power plan into effect would put our national government into the position of a speculator, in a sense, for theoretically the government's gains or losses could be large, depending on the volume of protected loans and how our terms of trade might change. But since there is no way to determine *a priori* whether our trade terms are likely to improve or to worsen, we may assume that in the long run the Treasury's gains would offset its losses.

It is certain, however, that administering the plan would cost something. Since official records would have to be maintained concerning all payments made by debtors to creditors, administrative expenses might be kept down somewhat by requiring that no such contractual payment be less than a stipulated minimum. Perhaps each such contractual payment might be assessed a small flat percentage fee to cover administrative costs.

Price Indices

A serious problem in implementing the proposal would be the choice of price indices. The present writer believes these should be of the aggregate type and deal only with the wholesale prices of commodities that are easily transportable.

If such indices were used, an arrangement could be made to protect the creditor's government if the debtor's government rigs its index downward, and to protect the debtor's government if the creditor's government rigs its index upward. Without the aggregate price indices and the arrangement that will be described, such rigging could be profitable, especially if exchange rates are controlled.

If such indices were used, a loan of a given number of monetary units, weighted by the index number, would represent a certain stipulated assortment of commodities. The creditor's government, if it suspects rigging, could be empowered to receive these goods in exchange for money it has lost on any loan, and the debtor's government, if it suspects rigging, could be empowered to turn over for money to the creditor's

Continued on page 51

Status of Television in Europe

Ernest A. Marx tells press of progress of television and electronics in nine countries of continental Europe, as revealed by his extended trip in that region. Sets lack of commercials as indicating European television will have a much slower growth than in U. S. Reports plan for European TV network.

Following his return to this country after an extended trip abroad, during which he surveyed the television and electronics industry in nine countries on the European continent, Ernest A. Marx, Director of the International Division of Allen B. DuMont Laboratories, Inc., made available to the press a capsule account of his observations, as follows:

Ernest A. Marx

West Germany

This country is forging ahead rapidly in television. Very shortly there will be eight stations on the air in the following cities: Berlin, Frankfurt, Langenburg, Cologne, Hannover, Hamburg, Weinbiet (Heidelberg), Munich. These will be connected by microwave lengths which already extend from Hamburg to Frankfurt.

Eventually 22 stations are planned in Germany and it is likely that Germany will go to ultra-high frequency when this occurs. Presently, the television receivers are being made by about 35 manufacturers. In September of last year a huge television exposition was held at Dusseldorf from which some programs were originated and others were received by microwave from Hannover. One day there was an attendance of 60,000 people at this show.

The Germans are presently using germanium diodes in their television receivers in screen sizes of 17-inch and 21-inch. In addition, they are manufacturing transmitting and studio equipment and are well abreast of the rest of the world in the development of transistors.

The largest radio manufacturer in Europe is located just outside of Neuremberg in South Germany. These people are now manufacturing television receivers and have concluded contracts with American Cathode-ray tube manufacturers at the same time. They are presently exporting to most countries in Europe.

There is considerable talk in Germany at the present time of television going commercial in the future, and it looks very likely.

France

French television is somewhat handicapped by the fact that it differs from the rest of European television in that it uses an 819-line system. In addition to the transmitter on the Eiffel Tower, there is a station in Lille, Lyons and Strasbourg. It is expected that new equipment will be installed on the Eiffel Tower station in the near future.

Other cities in France which eventually will have television are Bordeaux, Marseille, Nice and Toulouse. Eventually there will probably be many other cities in France which will have television. But the planning of stations has involved only the previous cities for the time being.

In September, a television show was held in Paris and considerable interest was shown. There are approximately 15 or 20 French television receiver manufacturers and three large Cathode-ray tube manufacturers. This number may increase considerably in the near future.

Programs are both live and on film and represent somewhat similar types as U. S. programming in its early stages. Most of the television receiver models in France are 14 inches and 17 inches with very few 21 inches.

Belgium

This country unfortunately has four separate television systems. They consist of the normal French system which is received from Lille in France, the Belgian-French system which develops from the French system by using negative modulation instead of positive modulation, the CCIR-European system which is received from Holland and Germany and the CCIR-Belgian system which uses the same 625 line system but with AM sound. As a result of this confusion, television receivers in Belgium are presently being made with a four-point switch to receive all four systems.

Broadcasting has now started in Brussels from the Palais de Justice but is very limited and at very low power (300 watts). The studio exists in the so-called INR building, where present radio broadcasts originate and is connected by miscrowave relay to the transmitter. With the language situation in Belgium also rather confused, the entire television picture in Belgium is too complex to analyze thoroughly or make predictions about its future.

Today it is obvious that the French in Belgium will listen to the French broadcasts from France and the French broadcasts on the modified system from Belgium. The Flemish from Belgium will listen to the Dutch broadcasts from Holland and the Flemish broadcasts from Belgium. The German population of Belgium will listen to the German broadcasts from Germany.

Holland

Presently Holland has a single television studio located in Borsum near Hilversum, outside of Amsterdam. The studio uses all borrowed equipment, including two Iconoscope cameras. The transmitter is located near Utrecht, operates at 5 KW, and covers a primary area of about 45 miles in radius. They are on the air only two or three days a week for a few hours each day.

Italy

Television has made considerable strides in this country and stations are presently operating in Rome, Milan, Turin and Monte Penice, between Rome and Milan. The Vatican will have its own station as well. Regular broadcasting began about the first of the year.

These stations have been connected by microwave lengths and eventually will be hooked up to the European network through Switzerland and Germany. There are now approximately 30 television receiver manufacturers in Italy, and a substantial number of American receivers have also been imported into the country. However, customs duties and other taxes on imported receivers are very high, and, as a result of this, a good many imported receivers are still in Italian Customs.

In September there was a television show held in Milan which attracted people from all over Italy. Although no complete imported receivers were permitted to be shown at this show, a considerable number of American chassis were exhibited in Italian

Continued on page 52

Electronics: Matured, But Growing Industry

Benjamin Abrams tells Robert Morris Associates the opening up of 300 additional TV stations will be a potential factor in expansion of the industry. Holds perfection of color television will bring larger sales and more profits to producers.

Benjamin Abrams, President of Emerson Radio and Phonograph Corporation, New York City, in a speech before the New York Chapter of the Robert Morris Associates at a dinner at the Harvard Club, on Feb. 3, discussed various aspects of the Electronics Industry, its development, its present status, and its future prospects.

Benjamin Abrams

Mr. Abrams, in the course of his address, traced the origin and development of the radio industry and pointed out that in the pioneer days of broadcasting, no commercial sponsoring of programs was envisioned. It was the view at that time that continuation of broadcasting would depend to some extent, at least, upon philanthropic contributions. It was not until 1932 that the radio industry began to expand. That year Mr. Abrams said, the industry was revolutionized by the introduction of small radios selling at popular prices. The development brought radio within reach of the masses and also created a demand for multiple ownership. The resulting increase in listening audience made possible better quality programs, which, in turn, further stimulated the sales of radio to the point where, for some time before World War II, the industry's sales volume reached $400,000,000 annually.

Mr. Abrams next pointed out that, from the crystal stage in 1922 to color television in 1954, which he termed the "Introductory Year" of color, there has been a continual evolution with many resulting casualties and successes. He declared that the industry reached maturity in 1947 with the introduction of television. This is best exemplified, he said, by the fact that those companies which enjoyed leadership in radio before television are the same who enjoy leadership in the industry today. Many of these companies, he added, have multiplied their net worth several times during these few short years.

Mr. Abrams emphasized that, from a volume of $400.000,000 annually before World War II, the industry reached $5,000,000,000 in sales in 1953, dramatically highlighting the electronic industry's advance in the past six years. Of this latter figure, he pointed out, $2,300,000,000 was accounted for by television and radio sales and the balance credited to government work.

Mr. Abrams revealed that 1953 was a banner year in the sale of television receivers and second only to 1950. The year witnessed the opening of more than 200 television stations which accounted for penetration into many new markets. These new stations, added to those previously in operation, brought television within reach of approximately 75% of our population. The most important development of the year, however, was the adoption by the Federal Communications Commission of color standards giving the industry the green light to proceed with further development and marketing of color receivers. Another factor bearing upon future sales and profits of the electronics industry was the development during 1953 of High Fidelity instruments for the first time at prices within reach of the masses ($100 to $150).

Mr. Abrams spoke of the continuation of the trend to compactness in radio and displayed to the assembled members the Emerson "Pocket Radio," the world's smallest personal portable (measurements are only 6" wide, 3½" high and 1¼" deep). This radio he characterized as the fastest seller in the field, even though list-priced at $40, and an important stimulus to the multiple ownership of radios. He also displayed a laboratory model of a forthcoming Emerson radio whose cubic content is about one-sixth the size of the "Pocket Radio," or actually as small as a pack of king-size cigarettes.

Working for Reduced Cost of Color TV Sets

Mr. Abrams emphasized that considerable work is yet to be done in engineering and production to develop techniques necessary to bring color receivers down to a price which will give them universal acceptance. This may not be expected to materialize until some time during 1955, he added, and predicted that, when it does, a new boom will be started in the industry which may very well last for several years.

On the subject of color television, the Emerson Radio executive voiced his firm belief that, although the sale of color receivers will rise sharply during 1955, it will never completely eliminate the sale of black-and-white receivers. He declared he is positive that black-and-white will always sell alongside of color and that black-and-white will at all times continue to be sold at lower prices than color receivers.

Mr. Abrams in his talk, discussed at some length the engineering research and development being done by his company on transistors and printed circuits for both government and development projects. A substantial sales potential factor in television sets in 1954, he said, is the anticipated opening of approximately 300 additional TV stations. This will open many markets, previously unexplored. for the sale of television receivers, he pointed out. Other factors which will lead to increased sales, he said, are the increased signal strength of established stations, the growing demand for two or more sets in the home and a replacement market stimulated by larger picture sizes and improved performance of new model receivers.

In commenting on the future of the electronics industry beyond 1954, Mr. Abrams pointed out that the greatest single potential for sales and profits is color television. He also predicted that color television will bring about a revival of projection television, which was experimented with six or seven years ago, but discarded because of the at-that-time insurmountable problem of satisfactory illumination via projection. He explained that projection television may eventually take the shape of a box approximately 12 inches square which will project the picture upon a screen, possibly three feet by four feet in size. This, of course, he pointed out, will revolutionize home TV viewing since the size of a picture will no longer be measured in

Continued on page 22

Does Govt. Insurance Develop Excessive Mortgage Credit?

By MARCUS NADLER*

Professor of Finance, New York University

Pointing out supply of funds for investment has kept pace with the increased mortgage supply, Dr. Nadler expresses opinion it is unsound to make mortgage loans without a down payment, but holds that extending mortgages for terms over 25 years, as proposed by the President, is primarily dependent on the insurance and the guaranty of the mortgage. Contends government insurance does not develop excessive mortgage credit, and holds government guaranteeing of mortgages has contributed materially to the high level of business activity and greater home ownership.

Introduction

One of the most important measures of the standard of living of a nation is the degree of home ownership and the type of housing the people enjoy. This is as important as the level of per capita food consumption and more important than the per capita ownership of cars or telephones or household equipment, all of which tend to make living easier.

Marcus Nadler

Moreover, the quality of housing and the degree of home owning have a definite bearing on the individual's attitude toward society and exercise a considerable influence on the health of a nation and on crime conditions. History tells us that in periods of great political disturbance and revolution, it is usually the slum dweller and the penniless who follow the agitator and run to the barricades. It is a known fact that the individual who owns property and particularly his home is as a general rule a defender of the system of private enterprise. The more widespread home ownership is, the better the people are housed, the more stable is a society. It is therefore quite evident that housing plays an important role in the economic and social life of a nation. This has been recognized by most free countries; and measures have been taken by many governments to provide the people, particularly those in the lower-income groups, with satisfactory housing conditions.

Home Financing

Prominent among the measures taken in this country to improve housing and encourage home owning has been the government guaranty and insurance of mortgage loans. Few people indeed can afford to buy a home outright. The original cost is usually large, and few families are in a position or willing to first accumulate the necessary amount and then acquire a home. Moreover, it is doubtful whether it is advisable for a family to put all its savings in a home and thereby be left without a nest egg available for use in an emergency. While it is possible to utilize a home as collateral for a loan in the event of need, many individuals dislike to adopt such a policy. Moreover, most Americans, in buying a home with an amortized mortgage on it, consider this as a form of contractual saving which constantly increases the equity of the owner.

The cost of home construction in the United States has increased considerably; in fact, it has risen faster than commodity prices in general. Thus, for example, the index of construction costs (U. S. Department of Commerce) rose from 69.4 (1947-49=100) at the end of 1945 to 123.0 at the end of 1953, an increase of 77.2%. During the same period, the index of wholesale prices rose from 69.6 (1947-49=100) to 110.1 or by only 58.2%. Construction costs have increased somewhat more than wages, which rose from the end of 1945 to the end of 1953 from $41.21 (average weekly earnings, all manufacturing industries) to $71.78 or 74.2%. It is obvious that the wage income of a significant proportion of the population is at a lower level and has increased at a lower rate than that indicated in the figures here presented. Where the cost of a commodity rises faster than the real income of a significant proportion of the consumers of that commodity, the consequences are bound to be as follows: either the demand for the given commodity decreases materially and its production is not encouraged, or the government steps in and through subsidies or otherwise makes it possible to buy the given commodity. This is clearly illustrated in the case of housing.

Were it not for the direct or indirect assistance by the government furnished through low-cost housing, FHA insurance, and VA guaranty of mortgages, many present owners of homes would not have been in a position to acquire them, and the slum problem in urban areas would be even more serious. Without such government aid, not only would housing conditions in the United States today be less favorable, but business activity could not have been maintained at the level

Continued on page 56

*An address by Dr. Nadler before the Annual Savings and Mortgage Conference sponsored by the Savings and Mortgage Division of the American Bankers Association, New York City, March 3, 1954.

Business and Health

By ROGER W. BABSON

Mr. Babson discusses health in connection with individual's earnings, and points out employees are often forced to work when feeling ill, and are thus not giving full value received for their services. Says thousands of business concerns are suffering losses because of inefficient work of half-sick executives and employees. Reveals some statistics of cash losses of illness and accidents.

Some weeks ago I wrote a column on the relation of Business to Mental Health. I now wish to write on Physical Health. Of course, people must have employment and wages in order to buy, but they must also be free from worry in order to do good work and get promoted. This is so self-evident that it needs no discussion; but I want to write now of something much deeper.

Roger W. Babson

My Personal Illnesses

I have not been feeling well for three weeks. Although I was not confined to my bed, yet something caused severe pains in my back and legs. I just could not do any constructive work and I began to worry, which I never do when feeling well. I, therefore, am now in Florida for a few weeks. This column, however, is not an advertisement for Florida, although I am very fond of its climate!

My purpose rather is to say that being independent financially and free to come and go, I am not dependent upon any job or salary. If, however, I were, and obliged to go to an office each day, I would not have given my company "value received" for my salary. Worse than that, I probably would have made mistakes in judgment which would have caused the company financial loss.

How's the Health of Your Associates?

Yet, there must be hundreds of important executives and thousands of foremen and tens of thousands of workmen, salesmen, and clerks who are dragging themselves to work when they ought to be home in bed. They do this partly not to lose their pay; or—if they are executives — not to have the word get around that they are not well. As the prosperity of every business depends largely on the decisions made by executives, foremen, and others, such "half-sick" men or women can cause their companies much loss.

When you consider that thousands of companies are suffering losses for this reason, it shows how poor health and worry must affect the entire business of the country. If you are unemployed, it may be due to your health or to your boss's health. In other words, if he were "up to snuff," the company might not have needed to lay you and others off. So much for that. Now some statistics on the direct cash cost of illness and accidents.

Illnesses and Accidents

The Health Information Foundation reports that during the past full year 22,000,000 families of these United States as individuals paid out over $10,000,000,000 for medical and dental costs. Furthermore, this was in addition to what the Federal Government and the States expended. Of the above $10 billion, $2 billion went to hospitals, nearly $5½ billion to doctors and dentists, $1½ billion for medicines, and over $1 billion for other practitioners, nurses, etc.

Most of the people treated got well, although they lost both time and money. But a good part of this expense was absolutely thrown away — for there were nearly 100,000 deaths, largely from automobile accidents. In addition, millions of others were injured by accidents, such as traffic accidents — 1,350,000; drownings—6,800; home falls—20,000; industrial accidents—15,000; burns —6,400; firearms—2,500; etc., etc. These figures are supplied by the National Safety Council. I wonder how many readers of this column will be included in the 1954 figures!

Let Us Look to the Future

The politicians and welfare experts are constantly raising the legal age at which young people can go to work. Now they say that all should have a college education. At the same time, industry is retiring more people between 60 and 65 years of age. Today the number of people over 65 years is one in 12; in 25 years it will be one in nine. But where is the money coming from to give the young people 22 years for education and play, and the old people pensions?

The truth is that somehow (through more taxes or higher prices), these millions of young and old must be supported by those between 22 and 60-65 years of age. The latter must also supply the $10 billion mentioned above. This makes the cost of sickness, youth, and old age far more important than the cost of coffee!

FHLB Retires Notes

Everett Smith, fiscal agent of the Federal Home Loan Banks, on March 1, announced that the Banks' outstanding $98,500,000 of consolidated notes, 2¾% series C-1954, due March 15, 1954 will be redeemed at maturity without refunding. On Feb. 15 the Banks similarly redeemed from current resources $111,000,000 of notes due on that date. Retirement of the bonds without recourse to refinancing, Mr. Smith said, reflects a substantial inflow of cash into the Banks since the beginning of the year as a result of repayment of loans and an increase in deposits. Principal and interest on the maturing notes will be paid at any Federal Reserve Bank or branch.

Upon redemption of the issue outstanding consolidated note obligations of the Banks will have been reduced to $204,000,000.

Jay Kaufmann Admits

Jay W. Kaufmann & Co., 111 Broadway, New York City, members of the American Stock Exchange, on March 1 admitted John R. Atwell to partnership.

THE MARKET . . . AND YOU

By WALLACE STREETE

The month-old breakout by at least the industrial stocks was stretched to a valid penetration this week that put in the records the highest standing for the average since the fabulous days of 1929.

* * *

The list showed signs of weariness at times subsequently, which was highly logical and in the classic tradition in that offerings dried up on weak moments and surged on strength. And there is the months-old fact that the rails have furnished little in the way of comfort for the strong industrials. Far from reaching anything approaching a historic level, the rail average not only is below its 1953 and 1952 levels but even is well below its February high.

* * *

Chrysler's New Look

Chrysler wore something of a new look, in that the persistent weakness with only occasional rallies that characterized the issue all last year gave way to some mild strength. The turn about came after it was disclosed that Prudential Insurance Co. was still optimistic enough over the laggard of the Big Three auto makers to pledge it a quarter of a billion dollars for a maximum of a century.

But Chrysler wasn't able to spark the rest of the motors as General Electric did for the bulk of the electrical equipment markers. Some lows in Nash and Studebaker as well as Motor Products recently sounded the note of caution that kept things restrained elsewhere.

* * *

General Electric Stars

As for the electrical equipments, the star was the soon-to-be-split General Electric with daily gains of as much as four points to the highest level it has reached since the famous year of 1929. Westinghouse alternated with GE in keeping this group tilted upward and was on the spot to take over any time its companion paused for rest. This issue, too, reached its highest posting in two dozen years. There is one difference between the two issues—Westinghouse was split 4-for-1 less than 10 years ago while the last split in General Electric was in 1930.

* * *

Aircrafts, helped by a steady stream of favorable news, continued to give a good account of themselves, the catalyst in the case of Consolidated Vultee being the proposed merger with General Dynamics. Convair, for several years, was something of a black sheep. It dropped from the 1946 high of better than $33 to below $8. It was considerably less than a blue chip when General Dynamics acquired 400,000 shares (out of 2,379,298 outstanding) from Atlas Corp. almost a year ago at about $24 a share. The acquisition has been a red ink item most of the time since, but this week it worked back to a break-even level.

* * *

Amerada Perks Up Oils

Amerada, after a couple of fruitless attempts, finally posted an official new high since 1952 with a considerable gap to go before it again posts a new all-time high. But the fact that it could even do this was heartening to the oil followers who, generally, have had a somewhat meagre fast on which to subsist. After their initial strength early in the year, the oils have been anything but distinguished as one issue after the other of the standard ones tried futilely to get a sustained movement going.

* * *

Chemicals have also been in the below-average category, despite some momentary strength in Monsanto following rather protracted weakness. Allied Chemical was modestly heavy for the most while Dow seemed to have been released, at least temporarily, from the persistent heaviness of late. DuPont, too, was far from outstanding which is a change for it after its recent strength and historically high tag.

* * *

Raido Corp. in Spotlight

An individual issue that did well despite the seesawing of the general market was Radio Corp. It forged ahead well when the general trend was up but gave ground grudgingly when it was the other way around. It's performance, far more than a general television popularity, was highly individualistic. The fact, as reported this week, that it was the No. 1 choice of investors using the new Monthly Investment Plan helped build up the following to the point where it was able to chalk up as much as a point gain per session. Zenith was a somewhat erratic member of the video group generally but it managed to carve out

fair gains without slipping too much subsequently.

* * *

Also highly individualist were the performances of strength put on occasionally by Northern Pacific and New Haven in the depressed rail section. Northern Pacific, as usual, derived its following from the intangibles of its oil lands, making it a trader's item that can be guaranteed to go through fillips occasionally. New Haven's performance was based on the far more tangible probability of a proxy fight for control of the road, a battle almost positive with a rival slate already named.

* * *

The more bitter battle over New York Central offered little influence marketwise. The initial hop in the issue as the fight started seemed to have run its course and, despite the normal fluctuations in tune with general market action, the stock had a leisurely time of it pricewise. There was enough interest, however, to keep it in the activity column after two consecutive weeks in which it led all the others in turnover.

* * *

RKO Simmers Down

Also quieted down was RKO Pictures pending settlement of several legal actions and the meeting of stockholders to act on the proposal of the dominant stockholder, Howard Hughes, that he buy them out. RKO, like Central, continued to feature in activity including blocks between 5,000 and 10,000 shares at a clip. And it fought gamely to hold on to its No. 1 position as the heaviest traded issue of the year to date. Its ability to hold a lead even over Central was largely due to one gigantic week's turnover of more than 770,000 shares which, at the time, was more trading in five sessions than any other issue had managed in the entire six weeks of trading of the year.

The technical action, while encouraging, still left plenty of doubters around. A handful of blue chips carried the industrial average to its lofty position, less than 90 points under the 1929 best which, for years, has been considered "fantastic." Special situations moving ahead smartly due to favorable dividends and earnings, merger rumors and splits, did little for the market generally and a large assortment of issues did little despite the statistical strength. Inability of the rails to get moving continued as the king-sized damper that nourished the bears and kept the bulls wary.

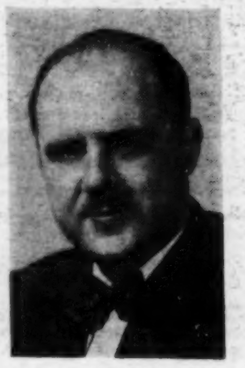
[The views expressed in this article do not necessarily at any time coincide with those of the Chronicle. They are presented as those of the author only.]

Where Is the Helicopter Heading?

By FRANK N. PIASECKI*
Chairman of the Board,
Piasecki Helicopter Corporation, Morton, Pa.

Mr. Piasecki discusses all phases of the development and use of the helicopter. Points out its unique timeliness for commercial transportation, synchronized with decentralization and extension of large metropolitan areas. Says helicopter will extend this radius many miles, while it will be an aid toward the decentralization of industry since helicopter service provides a ready means of tying together individual plants of one concern. Points out helicopter transportation requires smaller capital investment than short-line railroad or automobile inter-plant transportation facilities.

Dynamic changes have occurred in the emphasis placed upon helicopters since the outbreak of hostilities in Korea. Prior to Korea, the helicopter was more of a novelty than a basic vehicle. It was somewhat like a circus act; everybody enjoyed watching it, but few people cared to buy one and take it home. Its fundamental applications were not clearly understood.



Frank N. Piasecki

In fact, prior to Korea, only about 1,000 helicopters had been built in the entire world, and a large number of those were experimental craft which never saw practical service. This despite the fact that man's earliest concept of flying included vertical ascent and descent, just as the birds and the helicopter fly. In fact, some of the earliest recordings of man's designs for flying machines—including designs of the ancient Chinese and Leonardo DaVinci—were directed toward verticle flight. Only four years after the Wright Brothers' first flight, Louis Breguet, the famous and still active French aeronautical engineer, lifted a man off the ground for the first time with a helicopter. However, the simpler mechanical problems and the need for relatively less power permitted the fixed wing airplane to advance more rapidly in its development. Only in 1937 was the first truly successful helicopter flight made. This was a result of the knowledge and techniques gained from the development of the airplane and the autogiro.

At this point, I would like to distinguish between the helicopter and the autogiro, and define the helicopter.

(1) The helicopter has rotating wings, as distinguished from the fixed wings of an airplane.

(2) The helicopter has unique flight characteristics in that:

(a) It can hover and fly slowly.
(b) It can rise and descend vertically.
(c) It can fly backward and sideways as well as forward.
(d) It can land and take off within its own dimensions.

(3) The helicopter differs from the autogiro in that all of the basic factors of flight emanate from its rotors. That is, lift, propulsion, and control all are derived from the rotors. The autogiro, on the other hand, had a free-wheeling rotor which was not powered; its propulsion was provided by a propeller, and the craft had to be in motion in order for its rotor to be turned by the air flowing through it. In short, the autogiro was half airplane and half helicopter. It could fly more slowly than the airplane, but it was not capable of hovering or vertical flight as is the helicopter.

*An address by Mr. Piasecki before the Association of Customers' Brokers, New York City, Feb. 23, 1953.

The first military helicopter was delivered only in 1943. Until the outbreak of war in Korea, the helicopter's principal use — and this on a limited basis — was rescue. Other applications and techniques were being developed and demonstarted in maneuvers but only by a relatively small nucleus of helicopter enthusiasts using the limited number of helicopters available.

Experience in Korea proved and confirmed the helicopter's great utility and versatility and gave tremendous impetus to development and production of the machine. Everybody from the generals to the GI's was equally impressed even though the number of helicopters available was but a handful. Some 20,000 casualties were evacuated by helicopter in Korea, with the result that 97½% of all wounded personnel survived. This survival rate far exceeded that of any previous war. Over 1,000 pick-ups of crashed pilots and other U. N. personnel were made behind enemy lines, some as far as 125 miles behind enemy lines. This became so routine that the Air Force's 5th Rescue Squadron in Korea posted a big sign which said: "You Crash, We Dash; You Call, We Haul."

In another type of work, called "Operation Haylift," 16 Marine Corps helicopters kept two regiments of Marines supplied for five days without any other form of transport. In those five days, 1,700,000 lbs. of cargo were brought to those two Marine regiments.

The demonstrated usefulness of the helicopter in Korea can best be summarized by quoting General Shepherd, now Commandant of the U. S. Marine Corps and previously Commander of all Marine forces in Korea. General Shepherd said: "With more helicopters available, the military uses of this unusual vehicle are almost unlimited. Although Korea was the first time they had been in actual combat, their extreme value as a military weapon is established beyond dispute. Moreover, the usefulness of the helicopter is not by any means confined to a situation such as encountered in Korea."

The achievements of the helicopter in Korea were dramatic. Its achievements in rescue work particularly were so dramatic that they tend to divert our perspective from some of the other important applications of the helicopter. Now that Korean hostilities have ceased, it is timely to evaluate the helicopter's present and future roles and to determine whether current helicopter enthusiasm is only a result of attracting public fancy, or whether the helicopter's true value is proportionate to the publicity it has received. In this appraisal, I shall discuss:

(1) Present applications.
(2) Future potential, through extension of present uses, the development of new uses, and increased capabilities of the machine.
(3) The impact of the helicopter on our social and economic system.

Present Application

(A) **Military:** The helicopter's present military applications already are several and varied. Foremost today among these are:

(1) Rescue, not only in Korea but throughout the world. This is tremendously important in Artic and jungle climes, where time of exposure to the elements is extremely critical.

(2) Evacuation of wounded and injured, taking them speedily and directly to field hospitals without the dangers of rough surface rides and without transfer. Aside from its medical value, speedy, comfortable and sure evacuation has proved to be a **tremendous morale factor.** Every fighting man and every downed airman knows he won't be left wounded in the field and that his chances for survival are greater than ever before in history.

(3) Ship-to-ship and ship-to-shore transfer of personnel, mail, battle plans, doctors, and medical supplies is commonplace in our Navy. A helicopter is standard equipment on every battleship and cruiser when it goes to sea.

(4) Mines are sighted and detonated by riflemen in helicopters, without the dangers to which a minesweeping boat is subjected.

(5) Generals and other field commanders have been given a new mobility for observation and liaison. For the first time, they have first hand contact with all their units and the capability of immediate access to trouble spots. This, however, has brought complaints from GI's who say that even a foxhole no longer offers them any privacy.

(6) Important mapping and surveying work is being done by helicopter, particularly in Alaska. The helicopter saves much time and fatigue in rough terrain in performing surveys where most of the time heretofore was spent in slow movement rather than in actual productivity.

(B) **Civilian:** The helicopter already is receiving considerable attention and application to civilian commercial work. Regularly scheduled mail services have been operating on a daily basis in metropolitan Los Angeles since 1947, in Chicago since 1949, and in New York since 1952. In Los Angeles, for example, the helicopters of Los Angeles Airways make 18 flights daily between the airport and the roof of the main Los Angeles post office downtown. They also make six circuits of suburban routes, serving over 40 communities within a 50-mile radius of Los Angeles. The New York helicopter service has been extended to include passengers as well as mail. You and I can buy tickets in a routine manner for helicopter transit between Idlewild, LaGuardia, and Newark Airports.

Our European neighbors have been equally alert to the helicopter as a transport vehicle. Last summer, I had the privilege of being a passenger when Sabena, the Belgian airline, inaugurated the world's first international helicopter passenger service. Regular service is provided between major cities in Belgium, Holland, France, and Western Germany. Similarly, British European Airways has operated helicopter mail and passenger service and has publicly stated that it will convert many of its routes to

Continued on page 49

Channels of Investment in TV

By IRA U. COBLEIGH

Author of "Winning in Wall Street"

A brisk tune-in on the TV production program for 1954, setting forth some assorted ideas about sets, sales and broadcasts.

TV, the glamor girl of the electronic industry, continues to sparkle and fascinate; and all indications suggest that she'll be more colorful in 1954 that ever before. She's really quite a gal and her antennae receive billions more waves than even Toni could supply. Today some 27 million TV sets bring comedy, culture, Cole Porter and commercials into the American home; and in Chicago, for the first time in history, they have more TV sets than telephones or bath tubs. This is not necessarily intended as a sales lead to either Illinois Bell Telephone Co., or Crane Co.; it just proves that out in the Windy City they prefer tubes to rings!

Ira U. Cobleigh

Having done with this minor emulation of TV comedy, let's warm to our task and talk about the Video industry. Last year it presented a somewhat contradictory picture. While many of the statistics were favorable, the market action of leading equities here was distinctly disappointing. Total production was near the seven million level (exceeded only by 1950), net earnings for most companies showed a good gain over 1952, and the market was broadened by the entry of several dozen new stations bringing the total at the year-end to about 360. These new stations in 1953 accounted for roughly 25% of the sales of new sets, and the projected addition of as many as 200 more broadcasting stations for 1954 is a solidly favorable factor. Yet with all the production and sales, the price average of leading TV shares was off almost 20% in 1953 (from 1952). How did this happen?

Well, first there was considerable indigestion of inventory, especially in the last quarter, with unsold sets estimated, at one point, above 2½ millions. This slowing down of sales was accounted for in several ways. First there was some slippage in purchasing power due to increasing unemployment. More importantly, there was a barrage of comment and prediction about color television which caused a national hesitancy in buying new sets, the idea being to string along with the old black and white a few months longer until the color jobs were on the market. Then, toward the year-end there was a bit of price cutting; and some, at this stage, deferred purchase hoping for still lower tags. All this caused those security analysts who have always viewed the TV trade as highly cyclical, to lay off this section of the market list, and to withhold "buy" ratings in this group.

With the turn of the year, and one sixth of 1954 already accounted for, it would seem that a little more constructive market attitude might well be assumed toward TValues. First, the heavy inventory has been well nibbled at and set sales have shown a sharp pickup almost coast-to-coast. This has been brought about by two main forces. First of all, the "iffing and anding" of buyers about color TV has been removed by the emergence of certain facts: (1) Color TV will be "compatible" — your old set will absolutely convert spectrum spectacles to black and white; and (2) there will be relatively few color broadcasts, and (3) the new sets ("coloratuners" I call them) will set you back—excuse the pun—from $700 to $1,200, mink money that is.

So now George Spelvin has no essential worry about color—black and white will be the big broadcast boy for some time; and now that these doubts have been resolved, he finds sets on the average $25 cheaper than last November. Twenty-one inch sets of good quality are available quite generally at or around $200. That's attractive price-wise, and it's moving the items out.

From the above, it should not be presumed that color can be brushed aside as of little import. That would be incorrect. But it is sound to assume that at around $1,000, color sets will limit their appeal to the Cadillac crowd. There were about 110,000 Cadillacs sold in 1953 and that's not a bad prediction for color set sales in 1954. Moreover, tube technicalities for color have not been completely resolved. RCA, Columbia and Chromatic (Paramount Pictures) all have color tubes blending red, blue and green, each in a different way. And, the prices of the tubes (of the same size) vary by as much as $50. For broadcasting studios, too, the color costs will be higher: and new equipment costing as much as $150,000 per station seems requisite. So a lot more progress and cost reduction must be evidenced here, before color can be regarded as either a dangerous threat to black and white, or a substantial contributor to company earning power.

With this general background in mind, let's take a look at a few companies whose shares may have some current speculative or dividend appeal.

You'd have to start off with RCA. Its research through the years has given it consistent leadership in the industry, and its 1953 contributions of a color tube, an atomic battery radio and television tape recording open up new vistas of earning power. The common, long an energetic performer on the NYSE, is currently earning its $1.20 dividend almost twice. Its present market price of 25¾ just about bisects the high and low price range of the stock last year.

Philco has been an impressive electronic company for a long time with a continuous dividend record on the common running back to 1926. Philco is not only a leading manufacturer of television sets and radios, but has a wide appliance line including refrigerators, deep freezes, electric ranges and room air conditioners. By acquisition, completed only last month, of Dexter Co., it will now turn out washing machines and ironers as well. 1953 per share earnings were $4.84, a splendid cushion for the $1.60 cash dividend and ample justification for a 5% stock dividend declared last December. At 29 the common yields about 5.6%. PHL sold at 36½ last year.

Emerson Radio & Phonograph has been a progressive producer in a highly competitive field. It pioneered in portable radios, clock radios, and is up front with its 1954 color set with a $700 price tag. (It just announced a rental plan for this set.) It has also entered the air conditioning and oil burner field through acquisition in 1953 of Quiet Heat Corp. Emerson also has a number of government contracts with a backlog of defense orders on January first (1954) of about $40 million. Capitalization could hardly be simpler. 1,935,187 shares of common listed on NYSE and selling at 10⅜. The 50c dividend was thrice earned in the fiscal year ended 10/31/53. Emerson shares have proliferated via stock dividends as follows: 100% in 1948, 10% in 1949, 100% in June, 1950, and 10% in December, 1950. Emerson is a smart manufacturer and a smart merchant.

Raytheon is quite a factor in electronics with big defense orders (around $190 million backlog) and the rank, I believe, of fifth largest producer of TV and radio tubes. Its government business slants heavily toward research in special control devices for guided missiles. It also makes radio and TV sets retailed by Montgomery Ward and Western Auto Supply Co. Earningswise, it has been a little uneven but it has made a dramatic gain in net sales in the past five years, expanding this figure from $59½ million in the fiscal year 1949 to over $180 million for 1953. Net per share of $1.68 (year ended 5/31/53) was a 100% improvement over the preceding year; and there's quite a bit of leverage in this common. For the more conservative investor, there's a $2.40 preferred convertible into 2.7 common shares. This preference sells around 42. Raytheon is showing considerable progress and the common is getting close to dividend status.

Magnavox has rather specialized in production of high quality radio-phonograph combinations, and TVs; and in common with other electronic outfits, it also does a large defense business—in search radar, fire control and bomb direction systems. Earnings since 1950 have been quite good, covering the current $1.50 in each year by a good margin. Per share for the fiscal year (ended 6/30/53) was $2.93. At present quotation of 17¾, Magnavox shows one of the best yields in the group, 8.6% on the current dividend.

Of course, this space is too short to cover all the TV. General Electric and Westinghouse are, of course, powerful factors here, but TV is only a small portion of their total sales. Motorola is an excellent outfit. DuMont is important in both sets, broadcasting and research. It and Zenith were covered at some length in earlier articles; and Sylvania is one of the top tube manufacturers.

Related to the trade also is Sprague Electric Co. of North Adams, Mass., largest producer of capacitors, and a big maker of resistors and ceramic coated wires. The capacitors are vital in TV sets, air conditioners and many sorts of appliances. There are 749,890 shares of Sprague Electric traded over the counter around 65 with a present dividend rate of $1.60. This is a most interesting company in a very specialized field. There was a 12½ for 1 stock split in 1945, and a 50% stock dividend in 1952. History can repeat.

The foregoing has been presented as a somewhat hurried appraisal of video and its vistas. A bearish viewing of the industry does not appear particularly warranted at this time; in fact, there may, today, be some rewarding channels for investment in TV—maybe among the issues we're mentioned.

New York Stock Exch. Weekly Firm Changes

The New York Stock Exchange has announced the following firm changes:

Transfer of the Exchange membership of Hollis Hunnewell to Benjamin T. Burton will be considered by the Exchange on March 11.

Bywater & Leary was dissolved Feb. 19.

Virgil C. Sullivan retired from partnership in Granbery, Marache & Co., Feb. 28.

Electronic Industry's Great Asset: Diversity of Markets

By ROBERT C. SPRAGUE*

Chairman of the Board, Radio-Electronics-Television Manufacturers Association

Chairman, The Sprague Electric Company

After commenting on the 1953 peak year business in the electronics industry, Mr. Sprague discusses the advent of color television. Expresses belief color will not make black and white television obsolete. Points out biggest single customer in electronics is the Government, and production of military electronic equipment has been raised ten-fold since 1950. Sees growing market for electronics in industrial uses, and looks for increase in TV sales, because of expansion of broadcasting facilities. Estimates Radio-TV business in current year will reach $1.3 billion, while military business will be three billion dollars.

Last year the electronics industry did more business than in any previous year in its history, including the peak period of World War II. The total value of products made by the industry was approximately $5 billion, as compared with about $4.2 billion in 1952 and a previous high of $4.6 billion in 1944. The increase of 20% over 1952 was a combination of 0% larger radio-television volume and a 25% increase in military electronic equipment. The smaller but growing markets for industrial equipment and replacement parts also contributed to the rise.

Robert C. Sprague

Before we take a look at the prospects for the current year, it may be helpful to review some of the important developments of 1953 in each of the industry's major markets.

In television and radio, 1953 witnessed sales at factory values of about $1.4 billion compared with $1.3 billion in 1952. Sales of TV sets to the public increased slightly, to 6,375,000 from 6,145,000 in 1952, while radio sales totaled 12.2 million for a gain of 12%. Throughout most of the year demand for TV sets ran well ahead of the preceding year, but beginning in September sales at retail began to fall behind. This condition continued through the end of the year, with the result that October-December volume was off 23%. I suspect that most of this drop can be traced to the widespread, but often incomplete, publicity given to color TV last fall, culminating in the authorization of the NTSC color system by the FCC in mid-December. There is evidence that the public has since become much better informed as to the prices and availability of color sets, and although retail sales figures for January are not yet at hand, increased purchases of black and white sets by dealers which have been reported in recent weeks appear to reflect revived interest in black and white on the part of consumers. If this trend continues, the inventory situation may have over-corrected itself in another month or two.

The important fact that retail sales of TV sets were virtually at peak levels in 1953 has often been overlooked in the attention many people in and out of the industry have given to production cutbacks which became necessary late in the Fall to prevent further accumulation of inventories. I think it is well to keep in mind that stocks of TV sets on hand at the beginning of last year were somewhat low in relation to normal demand and to the number of retail outlets; it was not until July or August that this condition was corrected. However, the drop in retail sales beginning in September was so sudden that there was over-production for several months, with the result that November and December output had to be cut back fairly sharply to bring total stocks down to the level of 1.9 million at the end of the year. Although this represents a substantial increase from 1.2 million a year earlier, it is not far out of line with what I take to be a normal stock level of 1.6 to 1.8 million sets. At present set manufacturers are carefully watching trends in demand for sets, and will doubtless gear 1954 output closely to retail volume.

The Advent of Color Television

The most important single event in 1953 was the advent of compatible color TV based on the standards developed by the RETMA National Television System Committee led by Dr. Baker. As a result of the cooperative efforts of the industry over a period of more than two years, we now have a color system which dramatically enhances the entertainment value of television. At the same time, this system fully protects the sizable investment which has been made by the public in black and white receivers, whose value will in no way be impaired by the evolution of color. I say "evolution" because the length of time it takes for color to find its place alongside black and white will depend upon the availability of color receivers and transmitting equipment, and on the ingenuity of manufacturers in bringing about reductions in the very high cost of the first sets, which will range in price from $800 to $1,200. To date only a few hundred color sets have been made, and regular production runs will not begin for another month or so. I would guess that not over 150,000 color

Continued on page 57

*A talk prepared for delivery by Mr. Sprague at meeting of the New York Society of Security Analysts, New York City, Feb. 18, 1954.

Brig. General David Sarnoff, Chairman of the Board, Radio Corporation of America

Sees No. 1 wish come true!

Television Tape Recording by RCA Opens New Era of Electronic Photography

In 1956, RCA's General Sarnoff will celebrate his 50th year in radio. Looking ahead to that anniversary, in 1951 he asked his family of scientists and researchers for three gifts to mark the occasion. His three wishes: (1) A television tape recorder, (2) An electronic air conditioner, (3) A true amplifier of light.

Gift No. 1—the video tape recorder—has already been successfully demonstrated, two years ahead of time! Both color and black-and-white TV pictures were instantly recorded on magnetic tape without any photographic development or processing.

You can well imagine the future importance of this development to television broadcasting, to motion pictures, education, industry and national defense. And you can see its entertainment value to you, in your own home. There the tape equipment could be used for home movies, and—simply by connecting it to your television set—you could make personal recordings of your favorite TV programs.

Expressing his gratitude for this "gift," General Sarnoff said it was only a matter of time, perhaps two years, before the finishing touches would bring this recording system to commercial reality. He described this RCA achievement as the first major step into an era of "electronic photography."

Such achievements as Television Tape Recording, stemming from continuous pioneering in research and engineering, make "RCA" an emblem of quality, dependability and progress.

RADIO CORPORATION OF AMERICA

World leader in radio—first in television

Television's Role in Education

By JOHN T. RETTALIATA*
President, Illinois Institute of Technology
Chairman, Advisory Board, Chicago Educational Television Ass'n

Chicago educator recounts the efforts to establish restricted educational channels on television, and the accomplishments during the last two years in providing educational television. Points out advantages gained by combining general commercial television with Educational TV both from the industry's and the public's standpoints. Stresses value of TV as means of expanding and intensifying public education.

Almost two years ago, the Federal Communications Commission issued its final television allocation report, which signaled the end of the three-year freeze it had placed on the construction of additional television stations. The hiatus provided time for the FCC to work out a plan whereby stations will be situated to serve every-part of the country and yet not interfere with each other.

Dr. J. T. Rettaliata

During the freeze, farsighted educators throughout the nation had time to crystallize their recognition of the potentialities of television for teaching, and for improvement of national intellectual and cultural standards. They organized the Joint Committee for Educational Television to stake their claim in this new public domain.

More than 70 educators appeared before the FCC and testified to the need for non-commercial television stations. More than 800 additional educators mailed prepared statements. The gist of their testimony was that American education needed to use this electronic tool if it was to keep pace with modern life, and that designated channels should be reserved for this purpose while means were found to finance their use on a non-profit basis.

My own institution filed one of the statements and, in behalf of the major educational and cultural institutions of Chicago, requested the reservation of the local VHF Channel 11 for exclusive educational use.

The Federal Communications Commission, bound by Congressional edict to allocate channels solely in the public interest, convenience, and necessity, did not come to a quick decision. It reviewed the history of education in radio and broadcasting. It could recall that when Congress wrote the Radio Act of 1927, it did not reserve any special channels for education. It could recall that even after the Radio Commission was set up in the same year no channels were set aside for education. It remembered that despite several campaigns waged later to reserve specific radio channels for educational use, this was not done until 1945 when the Commissioin reserved some channels in the FM band. It remembered too that few educators availed themselves of the AM channels in the early days when they were readily available, without reservation.

Last, the Commission had to consider the testimony of many witnesses who contended that educators would not make sufficient use of the channels to warrant withholding them from commercial applicants, and who asserted that better results would be achieved if educational groups were limited to use of the public service time that commercial stations promised to make available.

The Final Decision of the FCC

The Commission finally decided that the public would be better served if some specific channels were reserved exclusively for educational use. Commercial stations have developed many programs of great educational quality and have been generous in offering public service time to educational institutions for the presentation of occasional programs. However, no one can expect them to set aside their most salable time for such programs or to tie up studio facilities.

Again, commercial stations, by their very nature, must appeal to a general audience and cannot afford to experiment widely in the fields of educational and community service. They cannot be primarily concerned with evaluation of their educational output, and they ordinarily are not set up to judge the educational qualities of it.

Last, educational television must be largely non-commercial to be indifferent to influences that can tend to force a distortion of ideas. Educators, perhaps more than any other group, should be able to present all sides of all issues and provide viewers with objective analyses of issues that many commercial stations often cannot touch upon to avoid possible conflicts with patrons and pressure groups.

The reservation of 242 channels throughout the country for educational use was, at first, the most controversial aspect of the FCC allocation report—even though its lifting of the freeze made a total of 2,161 local channels available in 1,300 communities spaced throughout the 48 States.

The Commission report left indefinite the period of reservation for these educational channels now totaling 248. As a practical matter, the period of each reservation is likely to vary in inverse ratio to the locale and value of the particular channel. In Chicago, the application for an educational station construction permit was speeded by the realization of the great value of the channel, as indicated by the purchase by the Columbia Broadcasting System of a local commercial channel for $6,000,000.

Chicago to Build an Educational Channel

I am glad to be able to tell you that Chicago's application for a permit to build an educational channel has been granted. A committee of civic leaders, headed by Mr. Edward L. Ryerson, supported by groups in the suburbs, has already raised approximately $870,000, or about 80%, of the $1,100,000 believed needed to build the local station and operate it for a period of two years.

It is particularly pleasant for me to be able to tell this audience tonight that much of the effectiveness of the fund raising effort has been due to the women in the participating communities. With your continued help, I am sure we will reach our goal.

The committee has made a good record. Not too much tangible evidence of progress was available before last April when we went to Mr. Ryerson. There had been some indecision about what should be done to finance the proposed station.

No educational or cultural institution ever has extra funds. No college or university collects from its students a tuition that is more than approximately half of the cost of providing their education. All but two of the leading local educational establishments are privately supported and dependent upon the annual generosity of many local contributors to avoid operating at a deficit.

Consequently, it was obvious that the educational and cultural institutions would not be in a position to finance the undertaking, although it is understood, of course, that all of them are prepared to subsidize indirectly some operating costs of the station by supplying program and production talent whose salaries are paid by the institutions.

The FCC has granted 29 construction permits in 18 states for non-commercial educational stations. One of these stations, in Houston, Texas, has been broadcasting for several months. Los Angeles is completing its test broadcasts. Both of these stations were expedited by funds from a single donor.

One of the 29 permits was granted to St. Louis, which is testing now and expects to go on the air soon. The University of Michigan is broadcasting over the leased facilities of a commercial station in Ann Arbor while construction of its own station is in progress.

The Michigan State College station at East Lansing is on the air now. The Iowa State College station has been in operation for almost four years on a commercial license. A state network is being planned for Oklahoma under the Chairmanship of Governor Murray. Another statewide network has been approved and financed by the Wisconsin Legislature. Pittsburgh and Detroit are among the localities with FCC construction permits. Both are conducting city-wide fund drives.

Advantages to TV of Educational Channels

Much of the opposition presented when the FCC was hearing evidence was motivated by self-interest. But now there is some realization that the new educational stations actually can serve this self-interest.

For example: Establishing such stations will persuade more people to join the television audience. A surprising number of the donors to the Chicago fund campaign for Channel 11 admit that they do not yet own television sets but expect to acquire them when the educational station begins broadcasts.

There are quite a few with very adequate means to own television sets who are not yet viewers because commercial TV is geared to a general audience in most cases, rather than to special interest groups who are highly selective. Educational television will provide the freedom of choice these people seek.

This wider choice range may prove valuable to commercial television by sustaining more people as viewers. If television can appeal to a wider variety of tastes and moods at any time, is that not to the benefit of the industry in general?

I also am persuaded that, in the future, educational television may develop new ideas in the way of programming. Granted, we educators have to be educated by the men and women who have been successful in the business. But, even as the student comes back later with a few ideas for his professor, so it may be that some new developments are to be contributed to the field by educational television.

Some have asked: "After the educational stations are established, where will the money come from to maintain them?"

A number of authorities have estimated that it will cost between $150,000 and $800,000 a year to operate an educational station. The station operated by the University of Houston, KUHT, was on the air in 1953 with an estimated budget of $90,000. It is certain that none of the educational stations will cost as much to operate as the large network stations because much talent and facilities will be provided without cost, and because the FCC has not set any minimum number of hours per day that a non-commercial station must operate.

Methods of Supporting Educational TV

How will the station support itself in the future? Some of the contemplated methods may be summarized:

If a non-commercial station's programs satisfy enough listeners, it is expected that many will contribute nominal annual gifts to support more of them. At this time, there are more than a million and a half TV sets within 50 miles of Chicago's Loop. Subscriptions of $1 per year from only one-fifth of these set owners would provide more money than needed. Chicagoans annually give nearly a million dollars to the March of Dimes, a national campaign.

Some also believe that the state legislatures should make appropriations to support the stations. Some would prefer not to see this happen. In any case, it is a source of support that could be considered.

While time could not be sold and there would be no commercials, gifts for station operation or for production of a special program could be accepted. Contributions can be acknowledged on the air in a way, that, indirectly, will be good institutional publicity for corporate donors.

With some experience, educational station managers will be able to determine what it costs to operate their stations for a given period of time. Based on this, it is possible that some cultural and educational institutions and civic and welfare organizations may be able to underwrite the cost of special programs that they would especially like to present.

For example: If the Chicago public school system wishes to present some closed-circuit, in-school programs to their classrooms, the board of education may find it more economical to pay some of the net cost of the television time than to hire special teachers to visit every school.

Tests conducted on commercial stations in Cleveland and Omaha in recent years have proved that some courses can be presented by TV. Viewers have been given the opportunity to take written examinations on the course and have earned credit toward college degrees upon payment of tuition. In some cases, tuition payments of viewers may pay the cost of those programs.

One of the interesting results of these experiments has been the demonstration of the effectiveness of education by television. In some cases the home viewers came to the campus at the end of the

Continued on page 48

*An address by Dr. Rettaliata before a meeting of the La Salle Street Women, Chicago, Ill., Feb. 25, 1954.

Important Uses of Television In Industrial Operations

By G. H. WILSON*
Supervisor, Electronic Sales,
Diamond Power Specialty Corporation, Lancaster, Ohio

Mr. Wilson describes various uses of television in industrial operations, particularly where distance between an operator and the process he controls precludes the possibility of direct observation. Points out equipment of ITV, i. e.: Industrial Television, is less complicated and less expensive than ordinary TV, and finds most valuable use of ITV is in promoting safety in mining operations and in minimizing losses from breakdowns in long distance belt conveyor systems.

Closed circuit television, while comparatively new, is being used in approximately 25 different types of industry as a means of providing remote vision, enabling the more than 200 using organizations to reduce accidents, operating costs, and/or capital investment.

G. H. Wilson

Closed circuit, or industrial television, commonly referred to as ITV, basically consists of a television camera, often accompanied by an associated power unit, which instantaneously transmits a continuous picture over co-axial cable to a viewer, or monitor. Thus, through the "eyes" of a television camera an observer is able to see an operation, process or phenomena which may be too distant, too inaccessible, or too dangerous to view directly.

Where distance between an operator and the process he controls precludes the possibility of direct observation, as is frequently the case where centralized control is employed, ITV reduces the possibility of costly mistakes and accidents. Since "seeing is believing," television provides a sense of realism which cannot be achieved by any other means short of physically bringing the remote process to the observer or vice versa. Likewise television permits remote control by one individual of an operation which, because of its size, formerly required the coordinated efforts of several workers.

Many industrial operations are dangerous and, because of their very nature, require close supervision which exposes personnel to possible injury or worse. In cases of the sort, ITV can and has saved lives, by permitting remote control of the operation. The machining of high explosives or destructive testing is conducted by personnel hundreds of feet away who still have close control through the "eyes" of the television camera.

While the word "television" conjures up visions of highly complex and intricate apparatus such as that employed in the modern TV studio and transmitting stations, the words "industrial television" should rightfully reflect compact, straight-forward equipment. Most present day ITV systems contain less than 25 tubes, including camera and picture tubes. The average home television receiver alone requires at least that many for its operation.

Some equipment contains only 17 tubes of which only three are in the camera. It can operate continuously and dependably without protection in any temperature from zero degree to 150 degrees Fahrenheit, consumes less current than a toaster and weighs less than 140 pounds. The camera and monitor may be separated by as much as 1,500 to 2,000 feet ordinarily and by equally greater amounts if additional amplification is provided. This equipment is designed to withstand vibrations up to plus or minus one-sixteenth inches and will operate successfully under more severe conditions of vibration and heat when suitable enclosures are provided. Any number of television cameras may be switched to a single monitor, and any number of monitors, within reason, may be used simultaneously.

A mining organization is concerned with the potential danger to personnnel which exists in connection with remotely operated man-skips. Engineers have suggested the use of a television camera in the cage to let the operator know unmistakably when it is safe to put the hoist in motion without danger to personnel.

A television camera will soon be installed in a mine shaft viewing two sheave wheels providing the control operator 1,500 feet away with a positive and fail safe means of knowing when cables disengage from the wheels, as they have been known to do, thus enabling him to stop operations in time to avoid an accident and prevent damage to equipment. The need for observation is sufficiently critical to currently require direct observation by an individual whom the camera will relieve for productive work.

Demonstration has proven that closed circuit television can be used successfully to view the interiors of cement kilns. It's use will permit remote control of six to ten kilns by one highly trained operator thus greatly improving product uniformity and at the same time reducing operational costs and improving working conditions.

It is reasonable to conclude that the current trend toward use of remotely controlled drilling equipment will eventually give rise to the need for ITV so that proper visual control can be afforded. While the engineering difficulties are numerous, several organizations have become interested in the possibilities.

To more fully evaluate the feasibility of television for a given application it is essential to know the capabilities and limitations of the several types of camera tubes currently available for ITV equipment. Since the camera tube is the heart of any television system, its capabilities and limitations become, in a general sense, those of the system itself.

In every successful ITV installation the user has determined just what must be seen and the manufacturer's engineering recommendations were directed toward that specific need. Present day suppliers of closed circuit television equipment should be prepared to offer such engineering advice so that the user is not left at the mercy of his probable unfamiliarity with its purposes.

In view of television's extraordinary commercial growth, which will continue unabated for at least a decade, it may be at first difficult to conceive that it could be outstripped by its expansion in closed circuit usage, as has been predicted. However, we must realize that its use as an entertainment medium has obscured the appreciation of its fundamental purpose. Basically television is remote vision, as its definition implies. Keeping in mind how extraordinarily valuable sight is to us, it is not difficult to visualize the benefits that can be realized by extending this faculty. While television is far from maturity, it has —by accomplishment—progressed sufficiently in this respect to warrant serious consideration as a medium of greater industrial accomplishment.

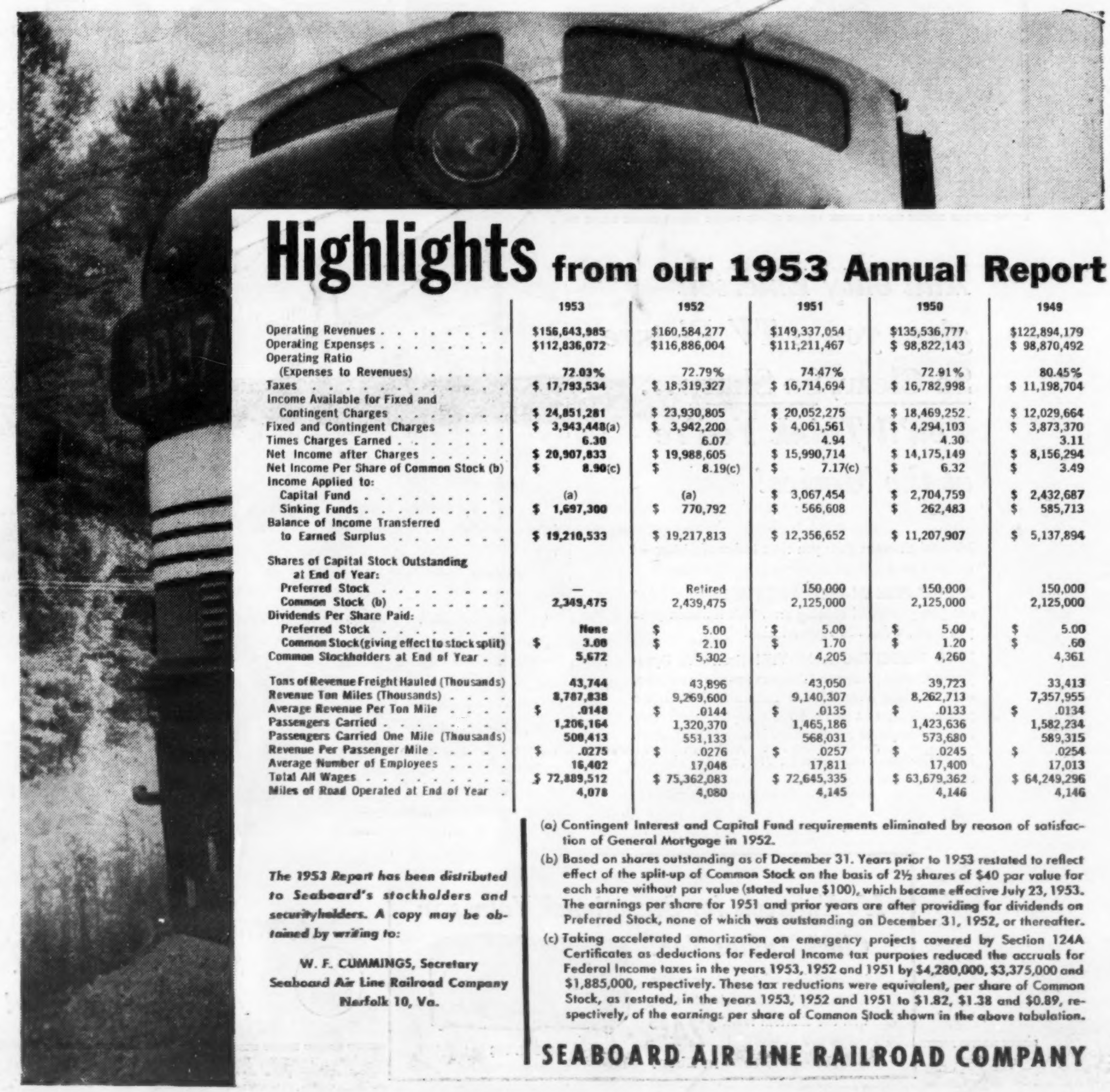
*From an address by Mr. Wilson at the Annual Meeting of the American Institute of Mining and Metallurgical Engineers, New York City, Feb. 16, 1954.

John C. Legg Admitting

BALTIMORE, Md. — John C. Legg & Co., 22 Light Street, members of the New York Stock Exchange, on March 11 will admit Beverly Mann Legg to limited Partnership in the firm.

Dempsey-Tegeler Branch

PASADENA, Calif.—Dempsey-Tegeler & Co., members of the New York Stock Exchange, have opened a branch office at 465 East Green Street under the management of Karl W. Lundberg.



IT'S an entirely new *kind* of transistor, developed by Philco scientists, and it solves two major problems that to date have blocked the widespread use of transistors in electronic applications.

For this new Philco Research development (called a *surface-barrier* transistor) contributes the ability, first, to operate at high frequencies with low power consumption, and, second, to be mass produced with precision at high speed.

Translate this into hard, practical terms and you get, for the first time, things like—

. . . a tiny, high frequency military radio set that is powered only by two penlight cells, yet has a daily operating life of *months.*

. . . a match-box size transmitter, activated by sea water, that sends an automatic homing signal for rescue operations and other possible services.

. . . and, eventually, compact electronic computers that will perform all the functions of the present, bulky, vacuum tube-type, yet uses only *1/1000th as much electric current!*

But the door has only opened—the great developments made possible by the surface-barrier transistor will ultimately spread its benefits to 90% of the five billion dollar domestic and military electronics industry.

To solve this basic research problem, Philco engineers etched Germanium electrochemically to an incredible thinness, with a tolerance of half the wave length of visible light! This made it possible, for the first time, to employ Germanium for its *surface* characteristics only, without the drawbacks of its *internal* composition.

Here, once again, is an example of the results flowing from Philco's continuing program of basic research. Though still in its engineering phase, the "surface-barrier" transistor will surely, someday, open the gate to more and better civilian production utilizing the marvels of electronics. It is from research of this kind that the name PHILCO becomes a unique standard for achievement in Television . . . Radio . . . Refrigerators . . . Freezers . . . Electric Ranges . . . and Air Conditioning.

And the end is not in sight!

ANOTHER FIRST FROM PHILCO RESEARCH

Needed: A Catalyst to Maintain Economic Progress

By ARTHUR A. SMITH*
Vice-President and Economist, First Nat'l Bank, Dallas, Tex.

After reviewing the role of savings in American economic progress, Mr. Smith points out that use of savings is largely determined by institutions to whom the funds are entrusted. Says decisions of these institutions have important influence on the economy. Stresses economic conditions as factor in investment of savings, and discusses role of commercial banking in providing working capital needs of business. Traces effect of economic conditions on volume of bank loans and money supply. Holds it is function of Federal Reserve to apply either stimuli or brakes to business activity, without changing bank loan standards. Places emphasis on "built-in" economic stabilizers to avoid business fluctuations.

In his "Economic Report," the President refers to several conditions essential to economic progress. Two of these relate to money: (1) an ample supply of savings upon which the growth of real capital depends; (2) "a supply of money in keeping with the increase in the physical volume of production and trade."

Dr. Arthur A. Smith

Traditionally, saving has been a great American virtue. When the country was young and much less developed than now, our capital needs exceeded what we could save ourselves. Large sums came from abroad. In the course of time, however, we were able to supply to an increasing extent necessary capital from our own savings, and institutions for gathering and utilizing such funds grew steadily in number, until today no other country in the world can equal us in this regard.

Obviously American thrift has made an essential contribution to the growth of our great industrial system and to our unequalled high standard of living. And, interestingly enough, industry's employment of our people and the people's high level of living in turn have encouraged savings.

With the exception of war periods when, because we have not been prepared, vast sums of capital have been needed immediately for war plants, the American people in the twentieth century have been able and willing to save **voluntarily** practically all the capital funds essential to economic progress.

I see no reason to suppose that such will not continue to be the case unless something happens to cause people to lose confidence in the future value of the dollar. Despite the fact that the dollar has lost almost one-half of its buying power since 1939, it remains the best monetary unit in the world, and confidence has been maintained. Most people I have talked with about this aspect of our money (and there have been many) seem to take the decline in the dollar's value rather philosophically—as a condition largely inevitable under the circumstances. Some have expressed to me this sort of attitude: "When the dollar bought in the '30s twice as much as it now buys, I did not even have a job all the time; and when I did, my earnings were meager. Now I have a good job and earn good wages. Even if the dollar is worth only half as much, I get more than twice as many dollars. So what?"

The few exceptions to this observation have been people whose incomes have remained relatively fixed or have not kept pace with increasing costs of living.

Savings Since 1939

But taken in the aggregate, the American people have not been deterred in their inclination to save since 1939. In fact, their savings have exceeded those of any similar period. And although interest rates are a factor in encouraging savings, we do not save in proportion to interest rates. To many people the interest rate is a secondary determinant. Largest influencing factor is income.

Another point worthy of note is that the vast majority of people who save do not themselves determine the real economic use to which their savings are put. Such decisions are made largely by institutions with whom the savings are entrusted — banks, savings and loan associations, insurance companies, etc.

Their decisions have an important influence upon the economy. But let me hasten to say that such decisions are not purely arbitrary and subjective on the part of those who make them. They are made within the framework of certain determinants, among which are (1) interest rates; (2) nature of obligations to those who saved; (3) obligations to stockholders; (4) laws and regulations affecting financial institutions; and (5) general economic conditions.

It has been a common mistake to think that the mere existence of funds or the machinery for creating them means that those funds will be put to use. If economic conditions are none to promising — if enterprisers' expectations are not good — applications for available funds will decline, and even a very low interest rate will not induce borrowing and utilizing funds. Also those who make application for funds under such economic conditions, very likely would find greater resistance from lending institutions than had been the case in more promising periods. I think that is particularly true of institutions, like commercial banks, whose obligations are mostly of a demand nature.

But no institution cares to make a loan at any time unless there are reasons to believe that the loan will be repaid—just as it is true that most enterprisers don't care to ask for loans unless they see a chance to use the funds advantageously.

It is hard to establish cause and effect. It is difficult to take a clear-cut stand, for example, that our banking system is an active originating agent in any phase of the business cycle. On the other hand, I certainly would not say that it is an entirely passive agent.

Savings and Commercial Bank Loans

When attention is directed specifically to commercial banking, we encounter an institutional system that does not depend strictly upon voluntary savings and its own capital for funds. It is able to create funds through the lending process and does so upon demand—when the decision-makers think that the loans can be used in such a way as to generate the means of their repayment. Similarly, the system extinguishes or destroys money when loans mature and are not off-set by other loans.

Our commercial banking system, as it now exists, has power to make available any amount of money conceivably needed by business for working capital and other purposes ordinarily served by the commercial banking function. It is sufficiently flexible and adaptable to do so. But it is something else again to say that the system should be held responsible for the periodic variations in the extent to which such funds are actually used. Money available and money at work are not identical.

It is true that announced changes in reserve requirements may have at times some psychological effect upon enterprisers and bankers, but it does not always follow that changes in reserves to make funds more available result in proportionately greater use of funds; nor does it follow always that increased reserve requirements result in proportionately less use of funds. Yet it is true that the volume of business and the volume of money in use tend to fluctuate together.

This would seem to lead to the proposition that changes in business activity cause similar changes in the volume of money in use rather than that changes in the money supply cause business changes. In other words something first happens to business that exerts either an upward or a downward pressure upon loan demand. Once the trend is underway, it is conceivable that bankers themselves might contribute to the pressure, but most would deny that they originated the trend. For example, business conditions might deteriorate to the point that bankers would regard it necessary to remain more liquid, either by retaining a larger percentage of cash or by maintaining a stronger primary reserve position. To achieve this, they would adopt a tighter loan policy, perhaps calling some loans and refusing to renew or make many others. This was particularly true in the days when banks feared "runs" on them. There is less excuse now since all but an insignificant few banks are under the protection of the FDIC.

Furthermore, the Federal Reserve authorities should make it unnecessary for any bank to exert downward pressure upon loan demand, or for any bank to turn down a worthwhile loan.

Should Loan Standards Be Reduced?

But we come back to the point that cannot be eluded — economic conditions may be such that there are fewer "worthwhile loans" even under the customary standards of credit followed by banks. And that raises the question: Should bank loan standards be reduced on the hope of stimulating business activity? Without some "take-out" or guarantee by the government or the Federal Reserve authority, I am afraid banks would not follow such a course in light of their responsibilities to depositors and stockholders.

Here is an implication for government action. At neither extreme—down or up—can it be expected that the commercial banking system deliberately will apply either stimuli or brakes (as the respective case may be) to business activity. Such must come from a more effective, centralized authority.

Despite the fact that we are the most advanced people in the world in matters economic, we still have not found for sure what it is that swings the economy periodically from expansion to contraction. Most popular explanation at present is that the economy does not generate steadily a sufficient effective demand to take off the market at remunerative prices all that can be produced. But this is an inadequate explanation because it begs the question: Why? Is it due to inequalities in income distribution? Is there some defect in the price system? Do enterprisers miscalculate when capital goods and plant capacity are planned? Do periods of expansion stimulate an optimistic psychology which leads to a liberal supply of credit which in turn leads to an abnormally high effective demand at the time only to cause contraction when millions of indebted people (producers and consumers alike) must repay the credit out of their future incomes, thus lowering effective demand at a later period? Or is the trouble due to something that causes disequilibrium between savings and investment? Or is it because durable goods producers in their eagerness to supply a pent-up demand at one time operate at above practical capacity (around the clock and on holidays) only to have to curtail at another time because they sold products in 1953 that they might have sold in 1954?

Whatever it is—it is not a lack of raw materials, or a shortage of plant facilities, or an inadequacy of transportation, or a dearth of manopwer, or a deficiency in managerial ability, or a want of technological knowledge, or a scarcity of capital funds. All these we have in abundance, and when they are coordinated toward a common objective—like winning a war—their output amazes us all, as was true in the forties.

An Economic Catalyst

But the mere availability of all these ingredients essential to baking a great economic pie does not assure us that the pie will be baked. Something else is needed—something less tangible, and difficult to define. It might be called the **will to do**, or it might be referred to as a coordinating, perhaps stimulating, ingredient, or maybe we should borrow a term from chemistry and label it a "catalyst." Whatever it is, economists do not seem quite to have agreed upon a term. Some refer to it as effective demand, others call it the prospect of profits; still others like to describe it as enterprisers' expectations.

This vague something has grown in its essentialness over the ages. It has become more and more important with increasing economic complexity — with the rise of specialization and greater interdependence among us.

In the dark days of the great depression of the 'thirties, a young German scholar told me that he could not understand why America was economically depressed. "She has everything," he said. Yes, we add everything, except the catalyst in proper proportion.

We should double our efforts to find out what this catalyst really is and how it can be reasonably stabilized in the interest of economic progress. As the President points out in his "Economic Report": "A high and sustained rate of economic growth is necessary to the welfare, if not the survival, of America and the free world."

In terms of secular trend the American economy (in an environment of freedom) has always progressed economically. From each depression it has recovered to go on to greater heights than before. In the relatively short run, however, we have experienced disturbing and sometimes distressing fluctuations. It is against these that we must strengthen our already built-in stabilizers and find additional ones to smooth the curves more in conformity with the secular trend of economic progress.

*Statement by Mr. Smith before the Joint Committee on the Economic Report, Washington, D. C., Feb. 16, 1954.

Continued from page 13

Electronics: Matured, But Growing Industry

inches. Mr. Abrams regards projection particularly important for best performance in color television. The project is still in the engineering stage but may be ready for production in two or three years. He also predicted the ultimate development of 3-D television as a follow-up to projection TV, adding that another development of color television will be the acceptance of Pay-As-You-See television. In view of the spiraling cost of TV broadcasting rates and programming and the increasing difficulty in finding sponsors to support important programs, and particularly since color will make television programs even more costly, Mr. Abrams believes that Pay-As-You-See television is the answer to making available quality programming to the viewing public. Under such a system, he said, the best first-run motion pictures and Broadway plays will be brought into homes at nominal cost to the owners of TV receivers.

The Pay-As-You-See system will serve everybody's interests, Mr. Abrams declared. He listed the following benefits: The home viewer can take what is free in sponsored shows and also select the special programs he may desire by paying for them; it will also supply a substantial source of revenue to the networks and stations; at the same time, it will be a solution to the problems of the motion picture and theatrical producers who now find tough sledding in competition with television.

Mr. Abrams predicted that printed circuits and transistors, to which Emerson is devoting considerable attention, will completely change the style and design of radio, as well as television. He added that they will also revolutionize the entire electronics industry as a whole, both in the defense and commercial fields.

In his talk, Mr. Abrams alluded to the need of a more liberal plan for financing consumer television installment paper. He felt that a provision for a reserve of $1\frac{1}{2}\%$ or even 2% would be ample to cover bad debts and may be acceptable to the industry in general. Such a financing program, tied-in with a floor plan, he said, would be a great stimulus to sales and will, in his opinion, furnish ample protection to banks.

In concluding his remarks, Mr. Abrams expressed great confidence in the future of the electronics industry, which, he predicted, will become one of the three or four leading industries, and perhaps our greatest industry, within a decade. In light of new developments and the varied uses of electronics, we have every right to expect that it will soon touch every phase of our social and economic life. There are still innumerable unexplored possibilities, but there is no doubt that we are living in what can be called the Electronics Age—an age that can only provide greater understanding and better living for all.

Alex W. Munro

Alex W. Munro, partner in Rodman & Linn, passed away on Feb. 18.

Threats of Lower Food Prices

By PAUL EINZIG

Dr. Einzig in calling attention to world-wide declines in food prices, pictures the economic dangers to food-producing nations that may arise from this trend. Recalls situation in U. S. in the '30s, and says another similar crisis is possible. Says lower food prices mean heavier costs to Britain in form of guaranteed prices to food producers.

LONDON, Eng.—It is not surprising that, after 15 years of almost uninterrupted inflationary rise in prices, the declining trend in the price of many foodstuffs in recent times, and the prospects of further declines, should be commented upon with satisfaction. Most people feel nostalgic about the "good old days" when everything was so much cheaper. They are longing to see the return of prewar food prices. Indeed the older generation is dreaming about the pre-1914 prices as the ideal state of affairs. Yet if the decline of food prices should cover a mere fraction of the space the rise covered even since 1939 — let alone 1914 — the free world would have to face disaster.

Dr. Paul Einzig

It is not adequately realized that the rise in food and raw material prices since 1939 has been to a large degree a blessing in disguise. Admittedly, the blessing is so well disguised that it cannot easily be spotted. Nevertheless, it is a fact that the change in the terms of trade as a result of the rise in food and raw material prices compared with that of manufacture prices has assisted the backward peoples much more than any number of Colombo Plans and other international actions could possibly assist them. The standard of living of various African peoples, low as it is, has risen very considerably since the war precisely because of the higher prices of primary products.

Human memory is short. But those who are longing for a return of low prices could and should remember that when in the United States the price level touched its pre-1914 figures in the '30s, the country was in the middle of the worst economic crisis of its history. Nor is there any reason to believe that it would be otherwise if the history of price movements in the '30s were to repeat itself.

Indications of an impending marked decline in world wheat prices are viewed with satisfaction in many quarters in Britain. Yet this is a very shortsighted attitude. Even from the narrowest possible point of view a slump in wheat would not be an unmixed benefit to Britain. As a result of the new system of subsidies, it would mean that the taxpayer would have to provide additional tens of millions of pounds in order to implement the price guarantee given to the British farmer.

Under the old system of subsidies the Government bought wheat and other foodstuffs at current market prices and resold it to the British consumer at much lower controlled prices. The taxpayer paid the difference running into hundreds of millions of pounds. The higher the market price of food had risen the more costly were the subsidies. Under the new system established last year the consumers' subsidies were abolished, or are to be abolished this year. They were replaced by farmers' subsidies in order to ensure to domestic food producers sufficiently high prices to make it worth their while to maintain and increase their output. To that end the Government has undertaken that, when the market price of decontrolled foodstuffs declines below the guaranteed minimum, the difference will be made good by the Treasury.

It is a strange irony of fate that food prices were rising when this meant heavier subsidies, but now that it is lower prices which mean heavier subsidies, food prices are falling. In the case of eggs, the Ministry of Food had to present recently a Supplementary Estimate of some £24 million as a result of the decline in the market price of eggs, necessitating the payment of subsidies to farmers in implementation of the Government guarantee. The hopes that food de-control would mean the end of food subsidies had to be abandoned. In 1953-54 food subsidies are expected to cost £325 million. They are likely to cost a great deal more in 1954-55, judging by the prospects of further declines in food prices. And in the unlikely event of Britain ever achieving her ambition of becoming self-sufficient in food, the subsidies the Government would have to pay on the increased quantity of home-grown food would present an almost insoluble budgetary problem.

So much for the domestic aspects of declining food prices. It may be argued that countries which have to import a large proportion of their food requirements stand to benefit by a decline in world food prices, because the burden on their balance of payments would become less heavy. This is, however, a very shortsighted view. For the food importing countries have to export in order to pay for their imports. And the purchasing power of food exporting countries would suffer considerably through a substantial fall in food prices. Their willingness and ability to absorb imported manufactures would be affected to such extent that the food importing countries would find it more difficult to earn the smaller amounts required to pay for their imports. All this is quite obvious. Yet it is necessary to restate such self-evident truths, in view of the attitude of many people in food importing countries, who fail to realize that they have no reason to be pleased about the decline in food prices.

Moreover it seems probable that any substantial decline would be followed sooner or later by a rise. Admittedly, food supplies are recovering from the decline they suffered during the war. In particular the production of rice has increased beyond the most optimistic expectations. At the same

time it must be borne in mind that the population is increasing, and that there is a world-wide effort to raise the standard of living. Industrialization of backward countries is also making progress, and it means an increase of local consumption of food which was formerly available for export. Taking a long view, the trend of food prices must be upward, apart from any other reasons, because the world-wide "creeping" inflation is likely to continue. This being so, such advantages as a fall in food prices would bring to consumers would be purely temporary. It would hardly be worth while to put up with the disadvantages of a major crisis for the sake of being able to get a very brief glimpse of the "good old days" of cheap food prices.

Continued from page 3

Television's Inherent Vitality

munity is much more confident of that, it would not be surprising to see the industry sell more than 6,000,000 receivers — which would make 1954 one of the good volume years to date. And I am not unwilling to tell you that our own company is planning and expecting to increase its share of this total business.

The Color Timetable

Now a word as to color television.

We believe that the color timetable that I outlined to the New York Society nearly a year ago does not need to be changed at this time. There will be only a trickle of color television receivers on the market in 1954, and but limited production of color in 1955. It will be 1956 before real mass production can be attained. This assumes that new inventions will make possible a color tube that gives a large-screen picture and can be produced in volume at reasonable cost and without excessive shrinkage. What a great thing it would be if the industry could do this in time for the 1956 Presidential campaign!

When it is here on a large-scale commercial basis, color television will open a whole new vista for the electronic industry. Anyone who has seen color knows how captivating it is. With a high unit of sale and an untapped market, the commercial possibilities of color are likely to exceed any realistic projections we might make here today.

Government Business

In the present government fiscal year which ends June 30th, the armed forces will spend about $3,500,000,000 for all types of electronic equipment and related gear, exclusive of guided missiles.

According to the new budget and including funds carried over into fiscal 1955, there will be another $3,500,000,000 for electronic equipment other than guided missiles. Based on the present world outlook, it would appear that continued emphasis will be placed on new and advanced types of electronic equipment. The increased importance which the President placed on interceptor planes in his budget message points in the same direction. Whereas the electronic gear going into a trainer plane may amount to only 2 or 3% of the cost of the plane, the amount increases to about 50% in the case of an interceptor.

You all have read something of the recent developments in the guided missile field. There is much more that cannot be told. The evidence points up the fact that expenditures for advanced radar and missiles will hold firm or even be increased. Therefore, the leading companies which are doing the research and development work for the government, and following this up with production, and Philco is proud to be a member of this group, can probably look forward to a substantial volume of business from the Armed Forces over the foreseeable future.

If we add up a television volume of $1,200,000,000 or more at factory levels, a radio business of 12,000,000 sets with a value of $300,000,000, a transmitter and industrial electronics volume of $100,000,000 and military business of $3,500,000,000, the electronics industry, including special manufacturers who are not in television, can look forward to a total volume of as much as $5,100,000,000 in the year 1954.

Phila. Secs. Ass'n Appoints Committees

PHILADELPHIA, Pa. — James T. Gies of Smith, Barney & Co., Vice-President of the Philadelphia Securities Association, announced the appointment of various committees of the Association to serve for the year 1954.

The membership committee is headed by William A. Lacock of E. W. Clark & Co. as chairman. Other members are: Francis M. Brooke, Jr., Brooke & Co., and Leighton H. McIllvaine, Goldman, Sachs & Co.

Spencer D. Wright, 3rd of Wright, Wood & Co. was appointed chairman of the arrangements committee. Reception, William A. Webb, DeHaven & Townsend, Crouter & Bodine; John P. McCoy, A. J. Sailer & Co. and Frank Lester Smith, Wurts, Dulles & Co. Golf and Putting: Russell M. Ergood, Jr., Stroud & Co., Inc.; Sterling J. Whitcomb, Bioren & Co., and Charles A. Reckner, F. P. Ristine & Co.

Prizes and Stock Exchange: Orrin V. Boop and William T. Poole of Schmidt, Poole, Roberts & Parke; Albert A. R. Wenzel, John M. Gallagher and Edmund L. C. Swan of Hornblower & Weeks; George A. Bailey, Jr., George A. Bailey & Co.; Robert F. Powell, Kidder, Peabody & Co.; Lawrence B. Illoway, Aspden, Robinson & Co.; John A. Nigro, Jr., Hallowell, Sulzberger & Co.; Daniel J. Taylor, Woodcock, Hess & Co., Inc., and John P. McCoy, William A. Webb and Frank Lester Smith.

Public Relations: Paul W. Brown, Jr., Philadelphia National Bank, and E. Howard York, 3rd, Doremus-Eshleman Co. Speakers: John K. Parker, chairman, The First Boston Corp.; Charles F. Nagel, Provident Trust Co.; Arthur Horton, Penington, Colket & Co.; Harold F. Carter, Hornblower & Weeks, and Warren H. Bodman, Woodcock, Hess & Co., Inc.

Educational: Theodore E. Eckfeldt, chairman, Stroud & Co., Inc.; Samuel W. Parke, Schmidt, Poole, Roberts & Parke, and John F. Macomber, Goldman, Sachs & Co. Directory: Franklin L. Ford, Jr., chairman, E. W. Clark & Co.; Lewis P. Jacoby, Jr., Thayer, Baker & Co., and C. Howle Young, Wellington Fund, Inc.

How Mild Will the Depression Be?

By EZRA SOLOMON*
Assistant Professor of Finance, University of Chicago

Professor Solomon, in making a forecast of business conditions to come, estimates that in 1954 the Gross National Product will aggregate $356 billion in comparison with $367 billion in 1953; but, by excluding what went into inventories in 1953, the predicted level in 1954 is $359 billion, compared with $362.6 billion in 1953. Sees some inventory liquidation, and does not look for much decline in consumer spending or investment outlay. Holds there are new factors, such as cost reductions, and more liberal tax treatment, that will maintain level of business activity.

The question on many minds today is "Is 1954 going to bring a business recession?"

Prof. Ezra Solomon

The answer to this question depends quite a bit on the way in which a business recession is defined.

The first and narrowest way is to say that a state of recession exists whenever the overall level of business activity falls below its immediately preceding level. This really avoids the basic issue. Under such a definition we are already in a recession and have been in one since August or September.

A second and broader way would be to define 1954 as a recession year if the level of business activity for the year as a whole, measured by expenditures on gross national product, falls short of the average 1953 level by five billion dollars or more. This definition also avoids the main issue. An inventory readjustment could, on its own, cause a decline of this magnitude in gross national product, even if all other expenditures achieve 1953 levels.

The kind of recession which is causing uncertainty and speculation today is a more formidable one. It is the fairly long lived cyclical downswing, caused by the disappearance of basic investment spending, and reinforced by a vicious circle of declining employment, declining income, declining consumption, inventory liquidation and further declines in plant, equipment and construction expenditures. The relevant question today is: are we in for a dose of this sort of thing?

To approach the answer to this question, I have divided expenditures on gross national product, or sales of gross national product, whichever way you prefer to look at it, into four broad groups. Group A includes all sales of goods and services to government. Group B is private expenditures on construction and equipment and net sales abroad. Group C consists of sales to consumers. Group D is the net increase or decrease in inventories.

A recession, under the first or second definiton, could result from a decline in any one of these four groups of expenditures even though the other groups remain at previous levels or surpass them. The short downturns of 1924, 1927 and 1949 were due almost entirely to a switch from inventory accumulation to inventory decumulation. The downturn of 1946 was due entirely to a fall in Federal expenditures.

A recession, under our third definition is a different matter. It involves a concurrent fall in all three of the private expenditure groups B, C and D and has, in the past, involved a serious fall in Group B.

Let us examine the outlook for 1954 in terms of this framework.

*An address by Prof. Solomon before the University of Chicago Executive Program Club, Chicago, Ill., Feb. 2, 1954.

Government Expenditures

Under Group A, Federal expenditures are expected to decline in 1954. These expenditures, which rose rapidly from a rate of 20 billion in mid-1950 to a peak of nearly 60 billion in mid-1953 have been a powerful stimulant in the last three years. But the expected decline is not, in itself, a serious matter. For one thing, we have not needed all of this vast acceleration of defense spending to support full employment. Much of it has spilled over into pure inflation.

Secondly, the decline in actual expenditures will not be as sharp or as large as is commonly thought. The dramatic budget cuts which are reported most often are the ones between the original Truman budget for fiscal 1954 and the new budget for fiscal 1955. The difference between actual spending in calendar 1953 and expected spending in calendar 1954 is of much smaller magnitude—probably two or two and a half billion dollars.

Thirdly, this decline in expenditure is about offset by tax relief in 1954, which puts more money in the hands of corporations and consumers; it will be more than offset if further tax relief measures are passed.

Finally, state and local expenditures will rise in 1954. Although there is no summary budget information available which indicates planned expenditures for the year ahead, it is possible to project these expenditures on the basis of past trends, the existing needs for state and local services and fiscal and financing factors. Huge needs remain to be filled in the sphere of education, highways and other state and local services; construction as well as personnel outlays can be expected to rise in 1954 and stay high for many years to come.

Taking all levels of government together, and even omitting the stimulating effect of Federal tax relief, the overall decline in Group A expenditures amounts to only half a billion dollars.

Construction and Equipment Spending

Expenditures listed under Group B contain the true clues to the business cycle. Excluding the small item, net sales abroad, these expenditures fell some 25% from 1929 to 1930. Between 1937 and 1938 the fall was 20%. In the 1948-49 downturn, by contrast, the fall was $4\frac{1}{2}$%.

Several reasons are being put forward in support of the argument that the fundamental outlook for construction and equipment expenditures is weak.

In the case of residential construction, the principal weakness which is emphasized is the rapid decline in the rate of household formation. From a high of 1.4 million a year between 1947-51 household formation dropped to 900,000 by 1952 and is expected to average only 750,000 per annum into 1955. This low projection is based partly on the fact that the age-groups now reaching typical household - formation age were born during the very low birthrate period of the 1930s. It is also based partly on the assumption that the postwar undoubling of families living together has about run its course and that the unusually high marriage rate of the pastwar years has ceased. With household formation running three-quarter million per annum, new housing starts are expected to decline from a rate of 1.1 million towards the three-quarter million figure.

This is good logic, but it does not go far enough. There are a number of positive factors which also need to be taken into account. A large number of presently occupied units are dilapidated. An even larger number require considerable improvement or modernization before they can be classed as even of minimum standard for the United States. A large, but unknown, number of the postwar units are going to be too small to cope with our present birthrate of four million per annum. Internal migration will continue to be one factor which sets latent demand for housing into action. The availability and slackening in mortgage credit and terms is going to be another factor in 1954. If Federal action to further ease credit terms on housing loans materializes and if builders go ahead with offering the better values price-wise they have promised, I see no reason why private residential construction expenditures will not again exceed $11 billion in 1954.

Capital outlays by business for replacement and expansion of plant and equipment broke records in 1953. Excluding residential construction and inventory accumulation, total private domestic investment spending totalled nearly $40 billion. Every year since 1949 a new high has been achieved in this sector and almost every year someone has predicted a downturn in this sector for the year ahead.

What is the evidence regarding this sector of private capital formation in 1954? A most valuable clue thus far has been the annual plant and equipment survey conducted by the Department of Commerce and the Securities and Exchange Commission. But the estimates for 1954 will become available only in April. A less comprehensive survey covering only the first quarter of 1954 shows expected expenditures at a higher rate than the corresponding quarter of 1953 but a trifle lower than the rate achieved in the rest of 1953.

A second source of intentions survey data is the McGraw-Hill Publishing Company. The regular annual report for 1954 is not yet available, but the results of a preliminary survey have been published. This survey indicates an 8% decline in capital outlays for the manufacturing sector. Last year a similar report predicted an 8% decline for 1953; actual outlays in 1953 rose 4%.

A third clue is available if we break capital expenditures down by industry groups. Several industry groups, including railroads, textiles and food reached peak outlays in 1951 and have since been spending less and less on capital expansion. 1951 was also a peak year for farm construction and equipment outlays. Since then declining outlays have reflected the decline in farm income. Other industries, notably iron and steel and non-ferrous metals reached their peak outlays in 1952. Two other important groups, petroleum and chemicals, joined this list in 1953. But counteracting these factors of decrease there are several major industry groups which have not yet reached their peak outlays for capital expansion. Among these are manufacturers of electrical machinery and automobiles, and possibly the important public utility group. In addition commercial construction is expected to rise significantly this year.

Many people are concerned with long-run relationships. Have we been over-building our capital under the artificial stimulus of a partly inflationary boom? Will a return to normal find us with a glut of capital and no markets for our overenlarged capacity. There is no objective answer to this. A look at past relationships provides only a relative clue, which can be misleading.

Since the war, the real proportion of our national output devoted to plant and equipment, is high when compared with the 1930s, but is no higher than it was in the '20s.

Today, capital consumption allowances alone come to 65% of gross outlays on plant and equipment. While the size of these allowances does not in any way guarantee a floor below which replacement expenditures cannot fall, it does indicate in a rough way how large a part of postwar spending has been for replacement rather than for true expansion.

Finally, there are three factors whose effects cannot be measured, but which will nonetheless provide important support for a continuing high level of fixed capital outlays. Cost reducing innovations in the sphere of construction can do a lot to convert an existing need for new construction into a demand for new construction. More liberal tax treatment of depreciation allowances is a second factor. Thirdly, the growing volume of expenditures on research and development should pay off soon with more new products and more new ways of making existing ones.

All in all, there appears to be no objective support for any forecast of a broad slump in investment outlays. While it is unlikely that 1954 will break the 1953 record in this sector, it is also unlikely that total group B expenditures will decline by more than 3% from the 1953 level. Under our third definition of a recession, there is not going to be one in 1954.

However, it does look as if we are now having an inventory readjustment which will be the principal cause of a recession of the first and second varieties.

Overall business sales in the final quarter of 1953 were about equal to overall sales in the final quarter of 1952. Yet in the intervening 12 months, aggregate inventories have grown by some $4 billion—the bulk of it in the durable goods sector.

All the evidence today indicates that active attempts are being made to reduce inventories. The fact that these attempts have already brought about some inventory reduction is a good sign.

Just how far inventory liquidation will proceed and at what rate is a question for which the forecaster does not have enough truly objective evidence on which to base his answer. Some guessing is involved, or as we say in the trade, "we have to make some assumptions." Alternative approaches to the problem yield about the same general result. A reduction of around $3 billion should bring inventories back into line with sales; most of this reduction will take place in the first half of the year.

The segments so far considered indicate a downward pressure on 1954 gross national product of about $10 billion as compared with 1953. Of this $10 billion over $7 billion is attributable to the inventory factor alone.

Will consumer spending hold in the face of declining income and employment? Or will consumers attempt to reduce their own expenditures and so bring about a multiple fall in GNP? Let's look at the darker side of the picture. First, consumer debt is already a heavy burden on many and new borrowing has slackened. Second, much of present saving involves either contractual installments into insurance and pension reserves or contractual repayment on existing debt. Thirdly, even the most optimistic of those who sell consumer durable goods feel that there is going to be some decline in this sector.

On the brighter side we have the following forces at work. Population is increasing $2\frac{3}{4}$ millions per year. Tax reductions and the increase in government transfer payments to individuals will insure that the initial fall in disposable income is considerably smaller than the fall in gross national product. Lastly, postwar consumer expenditures have shown a marked tendency to resist any downward change in the face of minor declines in income.

With these conflicting forces present it is quite unlikely that consumer spending will rise, as some have hoped, and so sustain the 1953 level of GNP. It is also unlikely that consumer spending will shrink along with the $10 billion fall in other spending and so bring about a downward spiral. The likely pattern for 1954 will be some rise in expenditures on services. This will partly but not wholly offset a decline in expenditures on goods, so that overall consumer spending will fall by some $2 billion.

Our forecast then is for a total gross national product of $356 billion. This compares with the 1953 total of $367 billion. However, if we exclude the inventory sector and compare only final sales, the predicted level for 1954 is $359.0 billion compared with $362.6 billion for 1953.

What we are having, and are going to have is an inventory recession. It is not likely to develop into anything more serious. Should the more formidable weaknesses appear, the Federal Government has ample power and has indicated ample willingness to undertake corrective action. Further reductions in tax rates and a step-up of Federal and municipal spending can and will provide enough support should private forces show any sign of dragging GNP below the 355 level.

GROSS NATIONAL PRODUCT
(Billions of Dollars)

		1952	†1953	‡1954
Group A:	Sales to Government			
	Federal	54.3	57.7	55.4
	State and Local	23.4	25.2	27.0
	Total Group A	77.7	82.9	82.4
Group B:	Sales to Private Investments			
	Residential Construction	11.1	11.8	11.2
	Other construction	12.3	13.3	12.9
	Producers Equipment	25.4	26.4	25.0
	Net Sales Abroad	—0.2	—2.0	—1.0
	Total Group B	48.6	49.5	48.1
Group C:	Sales to Consumers			
	Durable Goods	26.7	30.2	27.5
	Non-durable Goods	118.8	121.5	120.0
	Services	72.7	78.5	81.0
	Total Group C	218.2	230.2	228.5
A, B and C Total:				
	Final Sales	344.5	362.6	359.0
Group D:	Sales to Inventories	3.7	4.3	—3.0
Total Sales (Gross National Product)		348.2	367.0	356.0

†Estimated. ‡Forecast.

METROPOLITAN'S ANNUAL REPORT TO POLICYHOLDERS FOR 1953

Over a Billion Dollars

Paid to Policyholders and Beneficiaries—the Largest Sum in the History of Insurance

More benefits to more people were paid by Metropolitan in 1953 than have ever been paid by any Life insurance company in a single year. Payments to policyholders and beneficiaries amounted to $1,029,000,000.

When it is realized that Metropolitan's benefit payments are only a portion of those of the Life insurance industry as a whole, one can readily visualize the tremendous stabilizing force that the people of the United States and Canada have built for themselves through Life insurance and related coverages.

All in all, 1953 was an outstanding year in your Company's operations. In most respects, it was the best in Metropolitan's 86-year history. In the light of the high level of economic activity in the United States and Canada, and the ability of our Field organization, this is not surprising. We can take pride in reaching new heights in service to the peoples of our two countries.

National Economic Conditions

In retrospect, 1953 was a year of transition. Uppermost in the minds of all, but particularly those with sons of military age, was the cessation of hostilities in Korea. Nevertheless, we fully realize that our goal of a world at peace is far from won, and it is incumbent upon us to continue to remain militarily strong. With Korea no longer an active military theatre, we can convert some of our industrial facilities from production of materiel for human destruction to the satisfying of human wants.

On the domestic front, a number of influences have been at work to materially reduce the inflationary forces, which for so many years have been driving the cost of living to ever greater heights. The curtailment of war production, a temporary catching up with civilian demand in some areas, a determined effort to achieve a balanced budget, and a return to more orthodox management of public debt and fiscal affairs—all have played their part.

We in the Life insurance business are particularly conscious of the effects of inflation, which bear so heavily on the thrifty and those dependent on fixed incomes. All efforts to control this danger should receive our fullest support.

In the year ahead, business will be more competitive, but this is no cause for concern. Competition provides the same goods at lower prices, or better goods and services at the same price. The United States has grown to its present outstanding position on the basis of competition in a free market.

We are passing through a readjustment period, and have been for a number of months, but fundamentally this country is strong. Personal savings in the United States are now estimated at approximately 380 billion dollars, exclusive of the holdings of corporate securities by individuals.

We have, far and away, the greatest productive capacity of any country in the world. More than this, the people of this country and Canada have not lost their fundamental traits of thrift, initiative, and faith in God. Our two countries will go to much greater heights of prosperity in a peacetime economy than ever could be achieved in the midst of war.

Metropolitan Highlights of 1953

During 1953, Metropolitan's gain in Life insurance in force was substantially larger than was ever previously recorded by Metropolitan or any other Life insurance company in any one year. Metropolitan's Life insurance in force, at the end of 1953, totalled more than $56 billion. The number of people covered under all forms of Metropolitan policies reached a record high of over 37 million.

The assets of the Company, which help guarantee the fulfillment of its obligations, increased by $719,000,000, and reached $12,312,000,000 at the close of 1953.

Dividends to policyholders during the year reached an all-time high of $214,829,000. The interest rate earned by Metropolitan investments, after deducting investment expenses, increased to 3.31% (compared with 3.21% for 1952), and stood at 3.09% after the Federal Income Tax. Mortality continued at a low rate. Expenses increased moderately, largely because of the increased volume of business.

In citing the 1953 accomplishments, we wish to pay particular tribute to the 48,000 men and women in the Metropolitan organization who have made these results possible.

F. W. Ecker
President

For a more complete story of Metropolitan's operations during 1953, as embodied in the Annual Report to Policyholders, mail the coupon below.

METROPOLITAN ASSETS AND LIABILITIES—DECEMBER 31, 1953

(In accordance with the Annual Statement filed with the Insurance Department of the State of New York.)

ASSETS WHICH ASSURE FULFILLMENT OF OBLIGATIONS

Bonds		$8,437,418,065.78
Industrial and Commercial	$4,172,794,376.37	
U. S. and Canadian Government	1,890,206,554.53	
Provincial and Municipal	65,021,712.72	
Public Utility	1,642,459,573.13	
Railroad	666,935,849.03	
Stocks (All but $16,476,038.61 are preferred or guaranteed.)		172,718,060.11
Mortgage Loans on Real Estate		2,336,397,134.83
On urban properties	$2,157,837,445.45	
On farms	178,559,689.38	
Real Estate (after decrease by adjustment of $2,100,000 in the aggregate)		443,446,660.78
Housing projects and other real estate acquired for investment	$396,012,210.14	
Properties for Company use	47,979,349.96	
Acquired in satisfaction of mortgage indebtedness (all of which is under contract of sale)	1,555,100.68	
Policy Loans (made to policyholders on the security of their policies)		488,853,000.73
Cash and Bank Deposits		156,401,445.73
Other Assets (chiefly premiums and interest outstanding)		276,698,999.17
TOTAL ASSETS TO MEET OBLIGATIONS		$12,311,933,367.13

OBLIGATIONS TO POLICYHOLDERS, BENEFICIARIES, AND OTHERS

Statutory Policy Reserves (This amount, required by law, together with future premiums and interest, is necessary to assure payment of future policy benefits.)		$10,438,536,909.00
Policy Proceeds and Dividends Left with Company at Interest by beneficiaries and policyholders, to be paid to them as directed at future dates.		689,329,021.00
Set aside for Dividends to Policyholders (payable in 1954)		203,618,054.00
Policy Claims Currently Outstanding (claims in process of settlement, and estimated claims that have not yet been reported)		60,640,032.54
Other Policy Obligations		93,674,723.78
Taxes Accrued (payable in 1954)		51,633,831.58
Security Valuation Reserve (prescribed by the National Association of Insurance Commissioners)		25,845,145.00
Contingency Reserve for Mortgage Loans		5,050,000.00
All Other Obligations		28,213,270.94
TOTAL OBLIGATIONS		$11,596,540,987.84
Special Surplus Funds	$110,683,000.00	
Unassigned Surplus	604,709,379.29	
TOTAL SURPLUS FUNDS		715,392,379.29
TOTAL OBLIGATIONS AND SURPLUS FUNDS		$12,311,933,367.13

NOTE—Assets amounting to $586,852,295.40 are deposited with various public officials under the requirements of law or regulatory authority.

Metropolitan Life Insurance Company
(A MUTUAL COMPANY)

HOME OFFICE: 1 MADISON AVENUE, NEW YORK 10, N. Y.

METROPOLITAN LIFE INSURANCE CO.
1 Madison Avenue, New York 10, N. Y.

Gentlemen:
Please send me, without charge, a copy of your Annual Report to Policyholders for 1953.

NAME____________________

STREET____________________

CITY____________ STATE__________

Stockholder Prospects In Food Industry

By PAUL S. WILLIS*

President, Grocery Manufacturers Association of America, Inc.

Spokesman for food manufacturing concerns, in discussing prospects of the industry from the investor's standpoint, points out though grocery manufacturing industry is one of low and declining profit margins, it is a "growth industry," since food consumers are spending more, and there is a revolution in the food basket that favors food processing. Stresses importance of research, since the food industry is "a scientific operation." Estimates food industry expends $800 million on new plant and equipment yearly, and concludes there will be little change in food supplies or in prices during current year.

About two years ago we made a survey for a representative group of Grocery Manufacturers Association member companies and found, somewhat to our surprise, that these companies had almost twice as many stockholders as employees. Stockholders are widely scattered geographically, most of them own less than 100 shares of stock, and more than half of them are women. The role of the stockholder as the source of the funds needed for industry expansion and improvement has long been realized. But the recognition of stockholders as an important segment of public opinion, and an important group of consumers, is a fairly recent development. It is one which deserves to grow rapidly in the years ahead, and probably will.

Paul S. Willis

You security analysts — numbering, I understand, more than 6,500 in your profession—are in a key position between industry and its stockholders. Investors look to you for counsel in purchasing their securities. You not only exercise an important influence on the flow of investment capital among our many industries, but the presentations you make to investors influence their attitude toward industry in their roles as consumers and citizens.

There are many facts in the record of food and grocery manufacturing which make it worthy of investors' interest. This is particularly true at a time like the present, when general business appears to have leveled off.

We at GMA are continuously at work explaining to the consumer and the farmer that only a small fraction of the retail food dollar goes for net profits of the food manufacturer. We therefore especially welcome an opportunity to say to you that the food processing industry also has an excellent record of earnings for the stockholder, in addition to its history of service and value dividends for the consumer. Good dividends for both groups are in prospect for the future, and they are inter-related. As always, the industry's ability to pay dividends to shareholders will depend in large part on a continuing increase in its service, quality and value dividends to consumers.

Now let me explore with you some of the main factors which you will probably want to take into account in analyzing the grocery manufacturing industry. Probably the first factor is the overall profit trend.

Profit Trend

From the consumer's standpoint, the grocery manufacturing industry is one of low and declining profit margins. Based on the GMA sample of 89 representative grocery manufacturing companies, the net profit—after taxes—per dollar of sales declined from an average of 4 6/10 cents in prewar 1939 to 2 2/10 cents in 1952. In 1953 — based on reports so far available—the net profit rate increased to an average of about 2½ cents per dollar of sales. With sales also running well above 1952, total dollars of profit were even further improved.

The long-run decline in the profit rate on sales in the last 15 years has definitely **not** meant a decline in the industry's earnings in total dollars, or per dollar of investment. While profits per dollar of sales have been cut in half, the past 15 years have witnessed such a tremendous increase in dollar sales that total dollars of profits have roughly doubled.

Return on Stockholders' Equity

From the investor's standpoint, one of the important profit measures is earnings per dollar of stockholder's equity. The food manufacturing industry has a good record in this respect and one which is more stable than manufacturing industry generally. In boom years—or years of heavy defense spending—food manufacturers' net profit rate on stockholders' equity is of course somewhat below the defense industries, and below the average for all manufacturing. In recession or depression years, it is much better. In "normal" years it is about the same as manufacturing generally.

Consider these facts for example: For the first three quarters of 1953, manufacturing industries generally earned about 10½ cents per dollar of stockholders' equity. Food manufacturers earned about 8½ cents. Admittedly, the food rate was somewhat below average. Now let's look back to the bottom of the depression. In 1932 food manufacturers averaged about four cents on stockholders' equity against an average **net loss** of one-half a cent for manufacturing as a whole. In 1933 they earned about six cents against 2½ cents for manufacturing generally. Even in so mild a recession year as 1949, the food manufacturing figure was slightly better than the general figure. In the relatively normal year of 1939 the food average was about equal to all manufacturing.

A Growth Industry

Food processing has traditionally not been considered a growth industry. Yet its performance in the past 15 years has been one of unusual vigor and expansion. Consumer expenditures for food have risen from about $16 billion in 1939 to $64 billion in 1952 and an estimated $66 to $67 billion in 1953.

This rise in food consumption has far outstripped anything which could have been forecast on the basis of the rise in population or the rise in income in these years. We are selling a lot more groceries than we had any statistical right to expect, based on our experience back in the 1920's and 1930's. Before 1940 it was the historical experience that as national income increased, the fraction of income spent for food decreased. Up to that time, food expenditures in dollars went up when income rose, of course, but precentage-wise the food increase was less than the income rise. This relationship has been fundamentally changed in recent years. Today, with higher national income, food expenditures represent about 27% of disposable per capita income—against 23% in the late 1930's.

Consumption of food on a per capita basis in 1953 was approximately 1600 pounds compared with a little more than 1500 pounds in prewar 1935-39. But the consumption gain has not been primarily in terms of pounds. It is mainly reflected in the shift of our diets in the direction of the more highly processed, packaged convenience foods. Taking into account the combined effects of improved quantity, quality, variety, tastiness and the additional processing, packaging and convenience services provided for the 1953 diet, the real gain in per capita food and food service expenditure since 1939 is approximately 50%.

This gain is strikingly illustrated by the following fact: As I mentioned earlier, American consumers today are spending 27% of their disposable income on food. If they were buying only the types and amounts of food per person that they bought in the prewar period, this annual food basket—at today's prices—would take only 18% of income. The nine point difference—or 50%—is the degree to which the people of America have upgraded their eating habits.

Revolution in the Food Basket

Instead of around a thousand items to choose from, as in 1939, today's homemaker finds some 5,000 food and grocery products competing for her favor in the modern supermarket. The underlying forces which have produced this still continuing revolution in the grocery basket are many, but some of the fundamental ones are these:

Higher average income.

Scarcity and higher cost of full and part-time maids.

Research and new product development in food and grocery manufacturers' laboratories.

Nutrition research and education.

Effective industry promotion.

Awareness of starch versus protein in relation to overweight and slenderness.

Desire to eat more high quality food.

Urban living with its emphasis on outside activities for the homemaker, convenience and speed in home operations.

Self-service shopping.

Convenience foods are skyrocketing. Combining higher income with the other forces—maid shortage, new products, more nutrition knowledge—we can begin to understand why Americans have, in 1953 compared to 1939, consumed **per person** 1,250% more frozen vegetables, some 900% more baby foods, 738% more frozen fruit and fruit juices, 218% more canned fruit juices, 80% more canned soup, 71% more ice cream, 40% more cheese, 40% more canned vegetables, 35% more canned fruit, 37% more beef, 13% more coffee, 7% more fluid milk and cream and 6% more condensed and evaporated milk.

Consumption of many of the newer convenience foods is up sharply from prewar. Some were little known or non-existent before the war, among them baking mixes, dehydrated foods, soluble coffee and frozen concentrated fruit juices.

Working wives and homemakers seeking more time for leisure or other activities—and this includes just about all wives—have eagerly snapped up the new products with kitchen convenience "built in."

They found that home prepared foods, including preparation, watching, serving and cleaning up, for a family of four for one day, required 5.5 hours. But ready-to-serve foods needed only 1.6 hours—a saving of nearly four hours.

What the higher income-better nutrition-labor saving revolution has produced within product categories since 1939 is revealed in the following data. Compared to prewar, Americans are eating per **person**, by categories:

Fresh Meat — 20% more, but 150% more canned meat.

Fluid Milk—7% more, but more than 100% more non-fat dry milk and more than 100% more cottage cheese.

Margarine—Up 190%.

Lard and Shortening — About the same, but 33% more of other edible fats and oils such as salad oils.

Fresh Oranges and Grapefruit—About 20% fewer, but 1,500% more canned orange juice, 15% more straight and blended grapefruit juice canned, and 40% more citrus segments. Frozen citrus concentrate production, which began about 1946, has increased about 50 times, or 5,000%, since that year.

Fresh Apples—About 35% fewer, but 133% more canned apples and apple sauce.

Fresh Peas—About 75% fewer, but 5% more canned peas and about 500% more frozen peas.

(It is important to keep in mind that these figures are **per capita**, not the result of population growth.)

Fresh Tomatoes — About the same, but nearly 100% more canned tomato juice and almost 300% more tomato paste and sauce.

White and Whole Wheat Flour—About 15% less, but 33% more semolina flour and products.

White Potatoes — Between 15 and 20% fewer, and about 70% fewer fresh sweet potatoes, but 600% more canned sweet potatoes.

Dried Prunes—30% fewer but nearly 1,200% more canned prune juice.

Fresh Strawberries—About 50% fewer, but about 200% more frozen strawberries.

Among other fresh items, we are eating double our 1939 consumption of avocados and 40% more lettuce. Canned pickles are up 70% while canned fruit cocktail and fruit for salad consumption are up 100%.

Yesterday's diet luxuries are today's necessities. Today's luxuries will be tomorrow's necessities. And at the rate we are moving it will be an early tomorrow. The trend toward convenience is certainly continuing.

Research the Keystone

The food industry has become a scientific operation. Management is guided by research every step of the way. Much of today's impressive array of new food products was in the "test tube" stage five, 10 or 15 years ago. In the same way, the food industry of tomorrow is being created in laboratories throughout the industry today. Food and grocery manufacturers employ more than 6,400 scientists and technicians. They are constantly seeking new and better products, better processing methods, better packaging, better utilization of agricultural crops. Food manufacturers are currently spending in excess of $38 million annually for this type of research alone. In the years ahead, such research will be increasingly the keystone of industry progress. And expenditures are quite likely to increase substantially. New "flash" methods of food sterilization, electronic cooking, and even the preservation of food by exposure to atomic radiation all seem distinct possibilities for large scale development. Certainly research will be producing a number of new, easy-to-prepare and partially prepared convenience foods many times in the next year.

Capital Expenditures

The food processing industry has been spending in the neighborhood of $800 million a year, for several years, on new plant and equipment. While the latest McGraw-Hill survey indicated that manufacturing industries generally planned to invest 8% less in 1954, food manufacturers as a group planned to maintain their capital spending at last year's levels. In fact, many packaged food companies planned to spend more in '54 to meet the demand for frozen foods and other convenience items. As a further barometer, the report noted that the container industry planned higher spending in 1954 to keep pace with the needs of food processors.

Excess Profits Tax

There is considerable speculation about the effect of the termination of the excess profits tax on various industries—as regards prices, competition, advertising, etc. For the food processing industry as a whole, the removal of the tax would appear to have very little effect—certainly much less than for industry generally. This is, of course, because of the comparative stability of the industry's profits during the defense period. The situation reflects itself in the following figures: For the first three-quarters of 1953, all manufacturers as a group paid Federal income and excess profits taxes amounting to 56½% of their pretax earnings. In contrast corporations engaged in food manufacturing paid 53½% of their pretax earnings for these taxes—only 1½% more than the straight corporation income levy.

While this is the situation generally, there are of course a number of individual firms in the processed food field whose earnings have risen sharply since the 1946-9 base period. These are likely to be firms in the most rapidly expanding segments of the industry. The removal of the tax in these instances will free funds for further expansion, attract additional capital and generally make for an even more rapid and competitive development than would otherwise have occurred.

Prices and Supplies

There appear to be no startling changes from 1953 in prospect for either food supplies or prices in 1954, at least in the first half. Our 1953 harvest gave us the third largest crop total on record. In the areas where supplies in excess of immediate market needs exist—such as wheat, corn and certain manufactured dairy products—the items are under Federal price support. On the other hand, there are no notable shortages of any major, domestically produced foods. Supplies of meat, milk products, canned fruits and vegetables, frozen fruits and vegetables for the first half are all approximately equal to 1953's large totals. Only in a few import fields such as coffee is the supply situation clouded with uncertainty.

Retail food prices in December (the latest index) were about 1½% below a year ago and 3½% below the August, 1952 peak. Wholesale prices of both farm products and processed foods, after gradually declining for a period of many months, have stabilized and are at about last year's levels. With raw farm

*An address by Mr. Willis at the Third Annual Eastern Conference of the New York Society of Security Analysts, Inc., New York City, Jan. 28, 1954.

product prices fairly stable and assuming no drastic drop in general business activity, the food price situation is more likely to be influenced by labor costs than any other one factor. Wages are the largest single element in the food price spread. Increased compensation of employees has accounted for more than 60% of the entire increase in spread since 1939. For the same amount of factory labor time which cost the food manufacturers $1.00 in 1939, he pays $2.74 today. This is 17 cents more than a year ago and does not take account of such improved employee benefits as better pensions, expanded insurance coverage, etc.

In Conclusion

Taking all the above factors into consideration, what is the sales and earnings outlook for the grocery manufacturing industry for the rest of 1954? Obviously, this depends partly on how severe a decline, if any, occurs in national income and employment. This I would not attempt to forecast, except to say that we in the food industry are inveterate optimists about the vigor of the U. S. economy.

Generally, we believe that if there is a downturn in national income of no more than about 5%, the force of the continuing rise in population at the rate of about three million people a year, the strength of the very definite trend toward convenience foods and better nutrition, and the effectiveness of the research and promotion efforts of the industry will be able to maintain sales and earnings close to 1953 levels. In the event of a more serious economic downturn, sales and earnings of food manufacturers would of course decline. But in such an event we are confident that the decline would be less than in practically any other industry.

New Orders Bright Spot in Business Trend

Business Survey Committee of the National Association of Purchasing Agents finds increases in new orders during February counterbalanced decreases for first time since March, 1953. Says most of the adjustment between production and orders has been made.

A composite opinion of purchasing agents who comprise the National Association of Purchasing Agents Business Survey Committee, whose Chairman is Robert C. Swanton, Director of Purchases, Winchester Repeating Arms Company, New Haven, Conn., reveals that during February production, prices, inventories and employment were off at about the same rates as reported in January. The bright spot is in new orders. While not of boom proportions, the number reporting increases (30%) exactly balances the number of decreases, a condition that has not existed in the reports since last March. Also, the number showing increases is the highest since January, 1953. Production cutbacks and increased orders have closed the gap between falling orders and production, to two points in February.

Robert C. Swanton

The widest gap in 1953 was 15 points, in September—indicating that much of the adjustment between production and orders has been made.

Price changes, though more numerous, have been moderate, reflecting overstocks and stiff competition. Unworked material inventories show the sharpest drop since last June. Many are reported down to rock bottom. Employment is down—not quite as much as in January. Productivity is on the rise. Buying policy is predominantly 60 days and under. The majority opinion is that Easter, Spring and early Summer products are becoming active, and March may show a leveling-off to upward movement of industrial business.

Commodity Prices

Prices of purchased industrial materials continued to show weakness in February. Metals predominate in the slide-off of raw materials, with fabricated items running a close second. Cash discounts, missing since the imposition of price controls, are coming back. Freight absorption and delivered price changes help to lower the net cost to the consumer. With time to negotiate and currently excess capacities to negotiate with, buyers are experiencing healthy competitive conditions.

Inventories

Purchasing Agents report inventories of the materials they buy are lower again this month. 51% report reduction of stocks, the largest number so reporting in any one month since the inventory correction started last June. Many are in balance with current requirements. The adjustment appears to be about completed for many others. General comment is that this part of industrial inventory is in a much healthier condition than it has been for months.

Employment

Pay rolls are down again, though at a slightly lower pace than in January and there is a slight increase in those reporting new hirings. Outdoor work is expected to pick up in March. Productivity is improving as the incentive workers strive to make up for lost overtime pay. All types of labor are reported available in most areas.

Buying Policy

Sixty days and under is still the majority purchasing policy. Living off inventory, short orders, availability, and price weakness are influencing this short view of the markets. General assurance that vendors will meet delivery schedules, plus the improvement of supplier services, are making unnecessary the long-range or multiple commitments so prevalent during controls and scarcities.

Opens Offices

Mrs. Elizabeth Frenkel is engaging in a securities business from offices at 755 West End Avenue, New York City.

Outlook for TV Antenna Sales

Harold Harris, Vice-President of Channel Master Corporation, leading producer of TV antennas, says opening of new TV stations will mean replacement of single channel antennas by those able to receive a number of stations.

"The total volume of television antenna sales in 1954, both in units and in dollars, will be larger than ever before," Harold Harris, Vice-President in charge of Sales & Engineering, Channel Master Corporation, predicts.


Harold Harris

In a speech prepared for delivery on Jan. 29 in Ellenville, N. Y. at the first of a series of Regional Conferences of Channel Master Distributors, Mr. Harris continued: "The reason for this is the continuing number of new television station openings. Even in cities which now have television, the opening of new stations will mean the replacement of single channel antennas by antennas that are able to receive a number of stations. In many areas this would have to include both VHF and UHF channels," Mr. Harris said.

Mr. Harris divided the antenna replacement market into 3 major categories:

(1) **Mechanical Obsolescence.** Antennas which have been up for three to four years frequently become corroded to the point where reduced signal and inferior reception necessitate replacement. The television industry will eventually see a replacement market of at least 5,000,000 antennas annually.

(2) **Technical Obsolescence.** Newer and more efficient antennas, particularly the combination UHF-VHF types being developed in the Channel Master Antenna Development Laboratory, will result in superior reception, especially in problem areas.

(3) **Color Television.** "1954 will see major advancements in color telecasting," said Mr. Harris. "There are many questions as to whether present antennas will work on color television. Our studies indicate that color will make very little difference in antenna requirements. Practically all types of present antennas can be expected to receive color as well as black and white, though there is a possibility that fringe areas may move somewhat closer to the TV stations transmitting color. The indications point to a greater demand for fringe-area antennas."

The speech was delivered as part of a four-day conference of Channel Master distributors from the southeast section of the country. Local and national television conditions and problems were reviewed by the Channel Master personnel conducting the unusual conference. In addition, there were tours of Channel Master's new one and a half million dollar, 150,000 square foot plant, unique in the antenna industry in that it contains a complete aluminum extrusion mill. Channel Master is the world's largest manufacturer of television antennas.

Continued from first page

Medical Electronics—A Billion Dollar Market

presents the X-ray image in the same size but increased in brightness by a factor of 200.

In a standard abdomen examination, the best fluoroscopic resolution heretofore has been about 10 lines per inch, obtained after several minutes of dark adaptation by your physician. The brightness amplification of the electronic fluoroscope doubles this, yielding 40 lines per inch without long dark adaptation.

One of the most publicized devices of the fast-expanding medical electronics business is the high-powered betatron for cancer therapy. These machines initially were used almost exclusively for nuclear research. More recently, the betatron has found practical applications in hospitals and medical institutes for therapy and diagnosis. Its high-energy X-ray beam has been effective in irradiating deep-seated tumors in the human body with minimum damage to surrounding tissue. Its beam also can be used in treatment of lesions near the surface with a minimum of penetration.

These betatron machines, according to medical authorities, provide a distinct advantage over the low-energy X-ray beams from ordinary medical X-ray equipment. The latter do not penetrate to great depths in tissue, are not well-defined because of scatter, and are particularly destructive of bone. Thus, use of high-energy betatron X-ray in cancer therapy has the advantage of low skin dose and great penetration. High-energy X-rays, it has been found, also have diagnostic applications, especially where it is desired that the contrast of bone not be great, relative to tissue.

The acceptance of the betatron in medical therapy is providing a powerful stimulus to the rapidly expanding medical electronics business. Trade sources report that there are now ten such units in operation in industrial production and research with several others planned. Allis-Chalmers alone was reported to have under installation 24-million-electron-volt machines in the following seven hospitals: University of Illinois Medical Center, Chicago; M. D. Anderson Hospital, Houston, Tex.; Memorial Center for Cancer and Allied Diseases, New York City; Mallinckrodt Institute of Radiology, St. Louis, Mo.; Columbia Presbyterian Medical Center, New York City; Saskatchewan Cancer Clinic, Saskatoon, Canada, and French Ministry of Public Health, Paris.

Similar installations are said to be in various stages of planning or construction at the following medical laboratories: University of California Medical Center, Los Angeles; The Lincoln Laboratory, Bedford Air Base, Mass., and Royal Victoria Hospital, Montreal.

Delivery of the first permanently-sealed electron-beam betatron tube to New York City's Memorial Center installation last October made available a new method of treating cancerous tumors in critical areas such as the brain. The machines sell for upwards of $100,000 apiece, plus installation costs and test equipment, etc.

Another unusual electronic device was demonstrated at the conference of electronic instrumentation and nucleonics in medicine in New York City last year. This development consisted of man-made isotopes to detect as well as locate hidden brain tumors that otherwise would mean certain death. At this same conference, too, was introduced an apparatus that employs ultrasonic mechanical waves to visualize normal soft tissue structures and also disease processes in such structures which are generally transparent to X-rays.

Early this year, the Radio Corporation of America announced the development of the sanguinometer. This is an instrument for a simple, rapid and accurate mass method for counting blood cells, bacteria of grains in photographic emulsion. It was developed by RCA's research center at Princeton, N. J. at the behest of the Sloan-Kettering Institute. The instrument combines a television system with an optical microscope and a computer that counts particles in a given field. The television camera takes the place of the eye of the microscope. The information seen by the television eye is fed to both the computer and a monitor viewing screen.

The New York "Times," on Jan. 17, last, in reporting on the sanguinometer, said in part: "The Institute wanted a simple, rapid and accurate mass method of making blood counts to detect the first signs of radiation sickness in the target area of an atomic bomb. A blood count is an important indicator in diseases in which anemia may be caused by over-exposure to powerful radiations. But the sanguinometer also has its peacetime uses. In hospitals and research centers the device does its counting almost instantaneously and with a minimum of error."

The use of television in the sanguinometer is only one of many such applications in the medical field. Actually, television is having such a broad application in medicine that special treatment of this phase would be justified.

Television Use in Medical Instruction

One of the earliest uses of television was made back in March, 1952, by the University of Pennsylvania Hospital in Philadelphia. A telecast was made on that occasion of a major surgical operation. One of the purposes of the telecast was to diminish the layman's natural dread of surgery.

The broadest use of television is being made where visual demonstration provides the best medium for the communication of ideas and techniques. In such instances, the television camera becomes the instructor, and it is in medical schools that use of the camera is most dramatically illustrated. In perhaps no other way can students get an intimate demonstration in delicate techniques. In surgery, for example, the television camera promises to become an indispensable instrument of instruction.

The University of Kansas installed the first color television system for regular instruction in any medical school in the world as far back as November, 1951. Its installation brought about a complete revision in the entire surgical curriculum. In action, the television camera is mounted above the operating table and receivers are installed in several large rooms. The telecast permits 30 to 40 students to view the operation in each room. A two-way sound system permits questioning of the surgeon by the students. Similar use of television is being made by the University of Chicago and by the University of Pensylvania. Other universities are reported to be either considering or planning this new instruction method.

Simultaneous multi-city clinics by television constitute another innovation. One of the first of these was held late in 1953 on cancer on a closed-circuit telecast. Seven cities participated. The program was seen in New York; Boston; Philadelphia; Pittsburgh; Detroit; Dearborn, Mich.; and Toledo, Ohio. It originated in New York. Cancer experts on the telecast discussed methods of early cancer detection and other phases of the disease.

Telegnosis

Closely allied to these television applications is the new technique of "telegnosis." This is the term applied to diagnosis at a distance through use of facsimile equipment for transmitting X-ray pictures. With telegnosis, a distant hospital can obtain the services of an expert roentgenologist and specialist anywhere in the country within a few minutes. Time Facsimile Corp. is a designer of these facsimile machines.

Other examples of electronics in medicine are the radio-active wires injected by hollow needles into cancerous tissues. The radio-active wire is inserted into the hollow core of a special needle and then injected directly into the tumor under treatment. The therapy does much the same job as the injection of radium and is much less expensive. The device is produced by Tracerlab, Inc. It has been used in Boston, Mass., General Hospital.

Though its work has received comparatively little publicity, the medical department of the University of Chicago is reported to have been doing a great deal to help those unfortunates who suffer from hayfever and asthma. One of the important tools researchers are using is radio-active ragweed, which constitutes another example of electronics permeating medicine.

In the related field of psychology, General Electric's new "robot psychologist" with an electronic brain, memory and "show window" is now undergoing tests at the G. E. general engineering laboratory at Schenectady, N. Y., prior to delivery to the personnel research procedures of the Adjutant General's office in Washington, D. C. It is designed to help Army psychologists "see" that the right man gets the right job. Developed by G. E. engineers from a basic design prepared by Department of Defense psychologists, the two-and-a-half ton electronic computer runs through problems in statistical psychology that would require months or years of solution by hand computation methods. Solutions to the problems appear in dot patterns or scatter diagrams on a cathode-ray viewing screen.

Another contribution of electronics is the powerful electronic microscope whose use enabled photographs to be made of the polio virus—a tiny round ball so small that a million, side by side, could form a row only an inch long.

The science of electronics has yet to make its full impact on hospitals. B. C. Benson, of Chicago, hospital controls division manager for Minneapolis-Honeywell Regulator Co., some time ago projected this picture of the hospital of tomorrow: They will have electronic devices that act as substitutes for heart and lungs while these organs are operated on; bedside color TV cameras and intercommunication systems that permit nurses to observe and talk with patients without leaving their stations; and individual midget walkie-talkie sets for paging doctors in the corridors.

In this description, Mr. Benson neglected to include the electronic device already developed that pinpoints the location of metal in the human body. This instrument can be used during surgery to supplement preliminary X-ray findings. Its market price is around $700. Since its development, its biggest customer has been the military, although a number of hospitals have installed, or have on order, the units.

This growing importance of electronics in medicine was given considerable emphasis at the meeting last summer of the American Medical Association in New York City. A number of these electronic devices were on exhibition at this conference. Following that meeting, the authoritative trade book, "Electronics," estimated the value of electronic equipment in use by the medical profession at approximately $1 billion.

The big three of the products sold to the medical field in order of sales importance are X-ray, diathermy and diagnostic devices. Other important products include electronic surgical instruments and radio-isotope instruments for medical use.

The market for X-ray equipment among physicians is estimated to have accounted for more than a half-billion dollars in sales. Diathermy machines in use have an estimated value of about $60 million. Electronic diagnostic devices are reported to be gaining in sales. This group of instruments include the electro-cardiograph, electroencephalographs and colorimeters.

At the American Medical Association meeting, trade publications reported that physicians displayed great interest in the use of magnetic tape for recording heart beat signals over long periods at low cost, then re-recording conventionally only the medically significant portions as electro-cardiograms.

There seems to be no foreseeable limit at this time to the possible benefits of electronics in the field of medicine. There can be little doubt that the science of electronics is just beginning to make impact on this area of activity. The present billion dollar market for medical electronic devices seems certain to expand appreciably. How sizable this market will ultimately become is anyone's guess. In fact, some scientists have expressed the opinion publicly that with electronics it may eventually be possible not only to slow up the aging process, but even lengthen life considerably.

Cruttenden & Co. Adds New Partner; Opens N. Y. Office

Cruttenden & Co., members New York Stock Exchange, has announced that Donald R. Bonniwell has joined their firm as a special partner in charge of their Municipal Department with headquarters in Chicago, 209 South La Salle St. Mr. Bonniwell has been the financial adviser to the Government Development Bank for Puerto Rico, San Juan, Puerto Rico, for the past ten years. A New York office at 37 Wall Street was opened March 1. G. Wilmer Slaight, Jr., a specialist in municipal securities for over 30 years, joins Cruttenden as Manager of the New York office. Milton Van Riper and S. Edward Dawson-Smith, registered representatives, also join Cruttenden in this office.


Donald R. Bonniwell

Separate direct wires connect Cruttenden's Chicago office with their New York branch office and their New York correspondent, Reynolds & Co.

INVESTMENT TRADERS ASSOCIATION OF PHILADELPHIA

ANNUAL MID-WINTER DINNER

At Benjamin Franklin Hotel FEBRUARY 26, 1954

First Vice-President

Joseph R. Dorsey
Merrill Lynch, Pierce, Fenner & Beane

Second Vice-President

Edgar A. Christian
Stroud & Company Incorporated

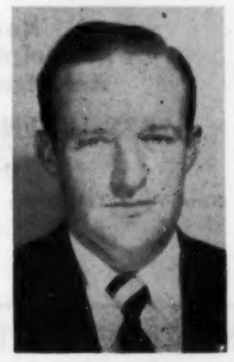
President

Chas. L. Wallingford
H. M. Byllesby and Company, Inc.

Treasurer

Samuel M. Kennedy
Yarnall, Biddle & Co.

Secretary



James G. Mundy
Stroud & Company, Incorporated

BOARD OF GOVERNORS

Charles J. Brennan
Blyth & Co., Inc.

G. Robert Brooks
Schmidt, Poole, Roberts & Parke

Jack Christian
Janney & Co.

John P. Dempsey
Kidder, Peabody & Co.

William Doerr
American Securities Corporation

Harry H. Fahrig, Jr.
Reynolds & Co.

A. H. Fenstermacher
M. M. Freeman & Co., Inc.

Rubin Hardy
First Boston Corporation

James W. Heward
Butcher & Sherrerd

John M. Hudson
Thayer, Baker & Co.

Robert McCook
Hecker & Co.

William J. McCullen
Hendricks & Eastwood, Inc.

John W. Murphy
Hornblower & Weeks

Thomas F. O'Rourke
Carr O'Brien Company

J. Leslie Rodgers
Blair, Rollins & Co. Incorporated

Wallace H. Runyan
Hemphill, Noyes & Co.

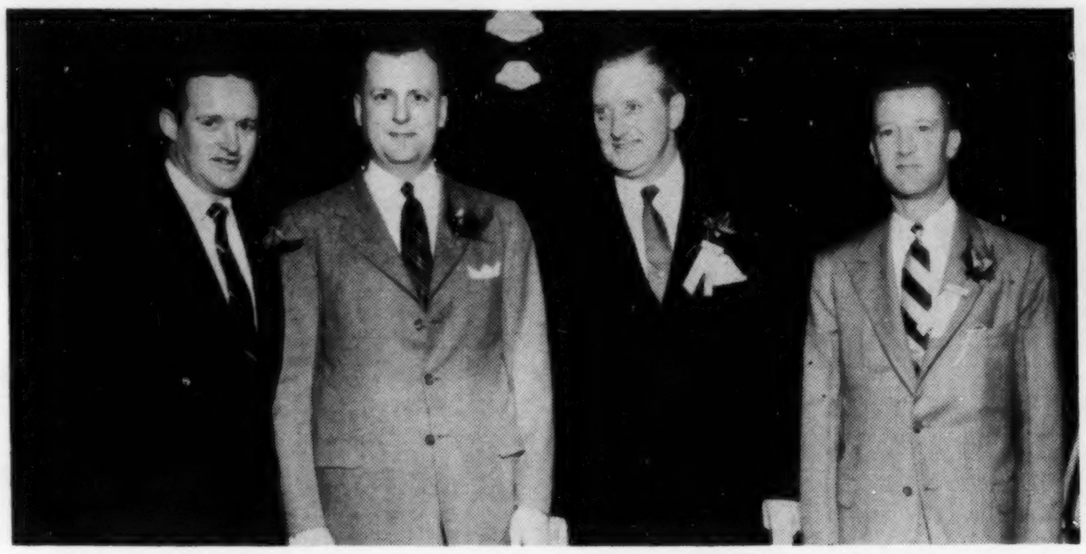
Joseph E. Smith
Newburger & Co.

Roy C. Thomas
F. P. Ristine & Co.

John F. Weller
Goldman, Sachs & Co.

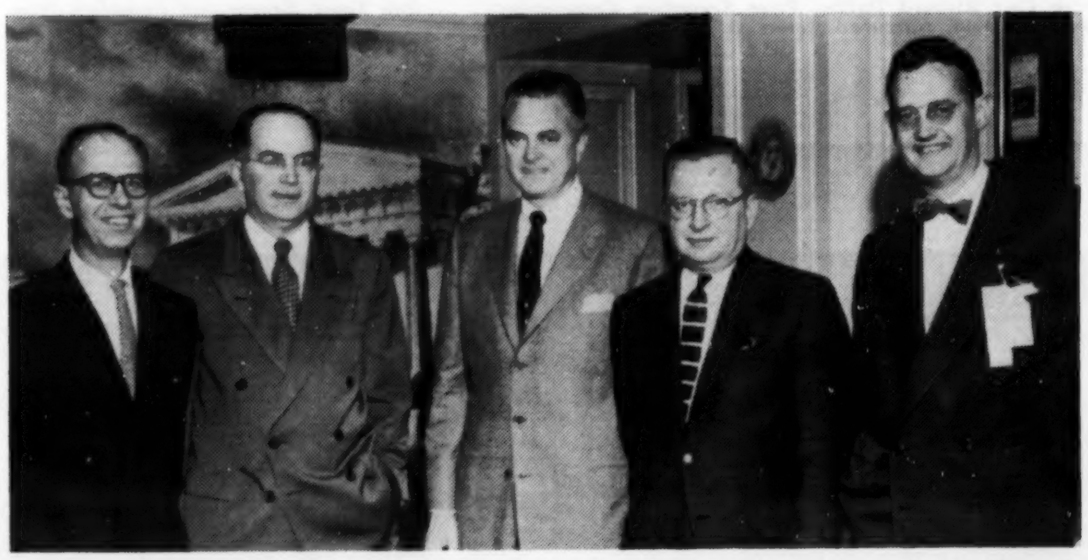
J. Myron Honigman, Pennsylvania Securities Commissioner; Clarence H. Adams, Commissioner, *Securities & Exchange Commission;* Charles L. Wallingford, *H. M. Byllesby and Company, Incorporated;* Anton Lund, *Securities & Exchange Commission;* Albert Marks, *Newburger & Co.,* Atlantic City, N. J.

Carl Necker, *Schaffer, Necker & Co.;* Al Knapp, *Wurts, Dulles & Co.;* Daniels C. Brasted, *Halsey, Stuart & Co. Inc.;* John Richter, *Butcher & Sherrerd*



Jim Mundy, *Stroud & Company, Incorporated;* Al Fenstermacher, *M. M. Freeman & Co., Inc.;* Joseph Smith, *Newburger & Co.;* Wallace Runyan, *Hemphill, Noyes & Co.*

Hal Murphy, *Commercial & Financial Chronicle,* New York City; Willie Schmidt, *Laird, Bissell & Meeds,* New York City; Carroll Williams, *Laird, Bissell & Meeds,* New York City; Joe McNamee, *Hopper, Soliday & Co.;* Cliff Remington, *Woodcock, Hess & Co., Inc.;* Andy Pimley, *Woodcock, Hess & Co., Inc.*



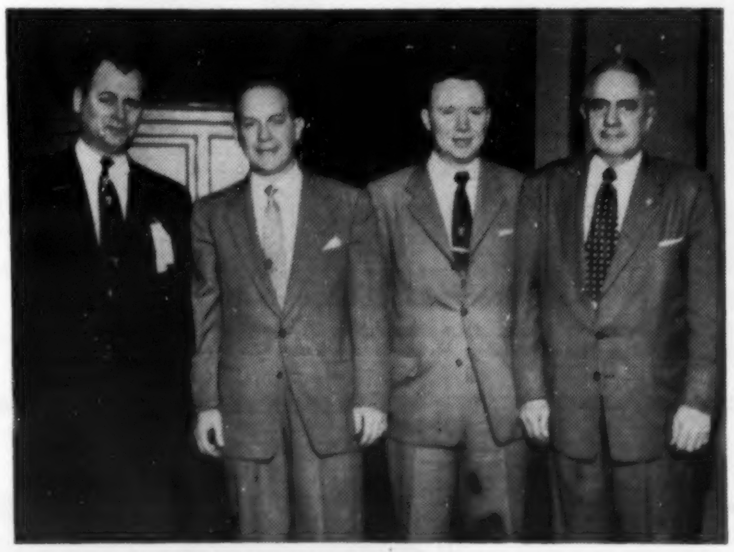
Donald McAlpine, *Goldman, Sachs & Co.,* New York City; Grant Campbell, *Janney & Co.;* Harry B. Snyder, *Yarnall, Biddle & Co.;* Alfred McBride, *Wright, Wood & Co.;* H. R. Derrickson, *Walston & Co.*

Ellwood Williams, *Pennsylvania Company for Banking & Trusts;* Arthur Hanff, Jr., *Newburger & Co.;* Larry Colfer, *Rufus Waples & Co.*

Arthur L. Wright, *Arthur L. Wright & Co., Inc.;* Bill Caldwell, *First Boston Corporation,* New York City

Bill Henshaw, *First Securities Corporation;* James T. Gies, *Smith, Barney & Co.;* Richard Duffin, *First Securities Corporation;* Eugene Arnold, *Harriman Ripley & Co. Incorporated*

Eddie Opper, *J. B. Maguire & Co., Inc.,* Boston; Bob Topol, *Greene and Company,* New York City



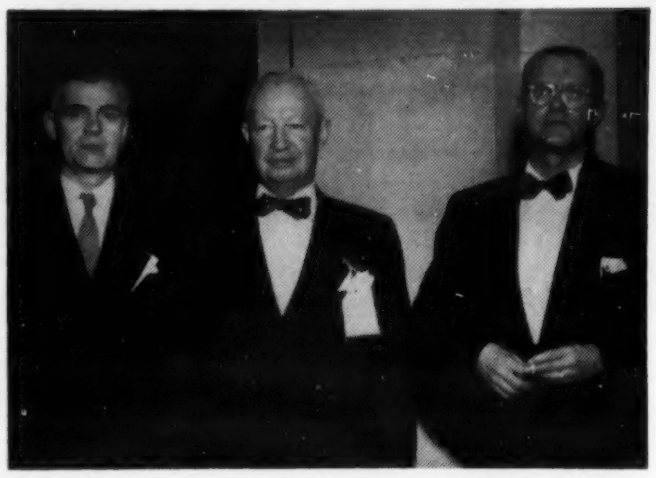
Jens Schanke, *W. C. Pitfield & Co., Inc.;* Bernard Eberwein, *Alex. Brown & Sons,* Baltimore; William T. Meyers, *Gordon Graves & Co.,* New York; Bill Boggs, *John R. Boland & Co., Inc.,* New York

Ed Welch, *Sincere and Company,* Chicago; Harold Scattergood, *Boenning & Co.*

Ben Mitchell, *Mitchell Securities, Inc.*, Baltimore; Gus Schlosser, *Union Securities Corporation*, New York City; Ely Batkin, *Batkin & Co.*, New York; Sid Jacobs, *Sidney Jacobs Co.*, New York; John Stein, *Wm V. Frankel & Co., Incorporated*, New York

Forrest Duble, *Parrish & Co.*; Tom O'Rourke, *Carr O'Brien Company*; Jack Murphy, *Hornblower & Weeks*; Edward Gilleran, *National Association of Securities Dealers*

Vincent M. Gowan, *Goldman, Sachs & Co.*, New York City; Harry A. Michels, *Allen & Company*, New York City; Bernie Tobias, *Gerstley, Sunstein & Co.*; Jim McAtee, *Butcher & Sherrerd*



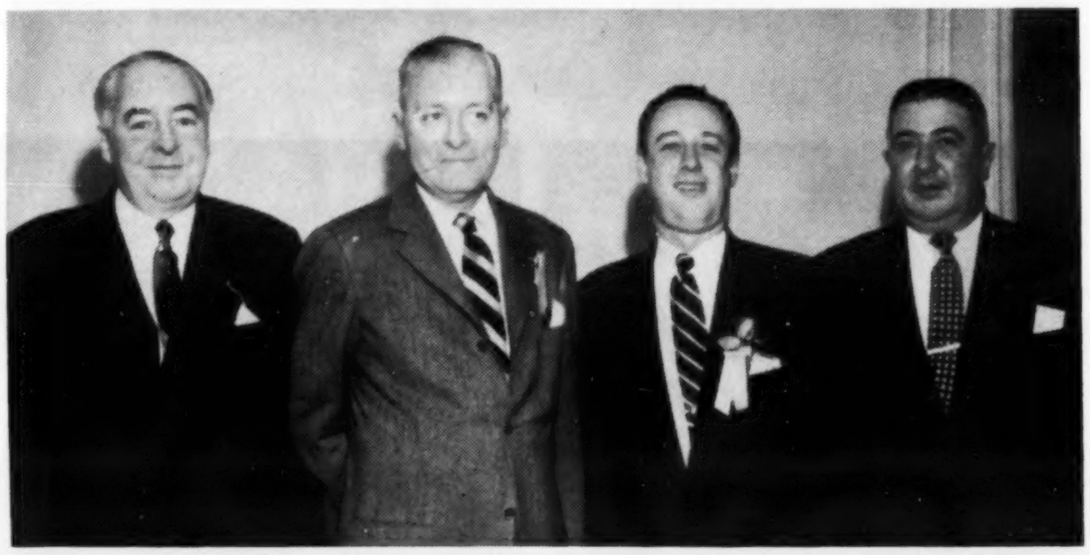
Frank Morrissey, *F. J. Morrisey & Co.*; Charles Campbell, *Dawkins, Waters & Co., Inc.*; John McGarvey, Jr., *Martin & Co., Inc.*

Duke Hunter, *Wellington Hunter Associates*, Jersey City, N. J.; Henry C. Welsh, *Lilley & Co.*; Irv Maxfield, *Cohu & Co.*, New York

Charlie Hoerger, *Merrill Lynch, Pierce, Fenner & Beane*; Phil Street, *First Boston Corporation*; John Hoff, *Kidder, Peabody & Co.*, New York


Bob McCook, *Hecker & Co.;* Walter Gemenden, *Butcher & Sherrerd;* Jack Weller, *Goldman, Sachs & Co.;* Ellwood Robinson, *Aspden, Robinson & Co.;* Dunbar Abell, *Reed, Lear & Co.*


Harry L. Arnold, *Goldman, Sachs & Co.,* New York City; Russ Ergood, *Stroud & Company, Incorporated;* Walter Fixter, *J. W. Sparks & Co.;* Tony Coculo, *Fidelity-Philadelphia Trust Company*


Jim Cleaver, *Goodbody & Co.,* New York; George Collins, *Geyer & Co. Incorporated,* New York; Jack Klingler, *First Boston Corporation,* Philadelphia; Howard L. Kellermann, *Alex. Brown & Sons,* Baltimore

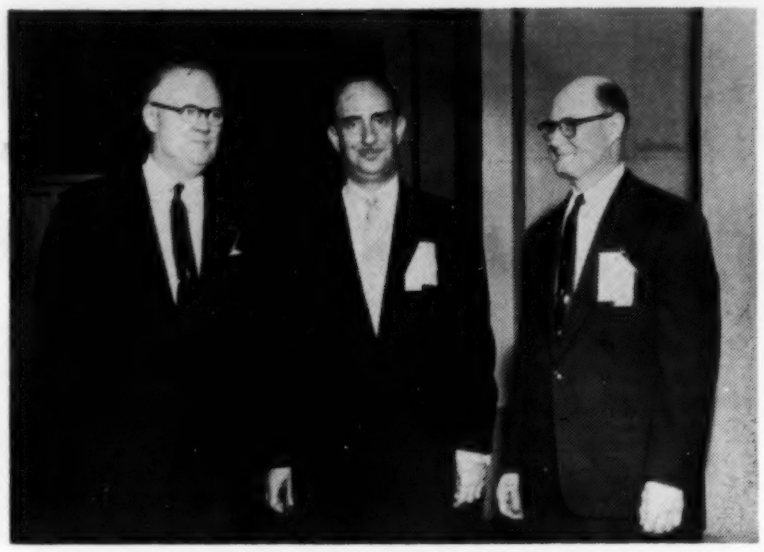
George Muller, *Janney & Co.;* Bill Doerr, *American Securities Corporation;* Sam. Kennedy, *Yarnall, Biddle & Co.;* Bud Hardy, *First Boston Corporation*

Charles L. Wallingford, *H. M. Byllesby and Company, Incorporated;* George E. Nehrbas, *Parrish & Co.;* Thomas J. Love, *Geo. E. Snyder & Co.;* Wm. J. McCullen, *Hendricks & Eastwood, Inc.*

Edmund Davis, *Rambo, Close & Kerner, Inc.;* Jack Christian, *Janney & Co.;* Joseph Cummings, *Brooke & Co.;* Ed Christian, *Stroud & Company, Incorporated;* Stump Carothers, *H. M. Byllesby and Company, Incorporated*

Harry J. Peiser, *Ira Haupt & Co.,* New York City; J. Albert Leek, *Coffin & Burr, Incorporated;* Walter V. Kennedy, *Coffin & Burr, Incorporated,* New York City; Harvey Renton, Jr., *Freeman & Company,* New York City; Harry E. White, *Penn Mutual Life Insurance Co.*

Maurice Hart, *New York Hanseatic Corporation*, New York; Walter Dunkle, *Arthur Wright & Co.;* Frank Ronan, *New York Hanseatic Corporation;* R. L. Whittaker, *Robert L. Whittaker & Co.;* Newton Parkes, *Arthur L. Wright & Co.;* Aaron Netburn, *New York Hanseatic Corporation*, New York

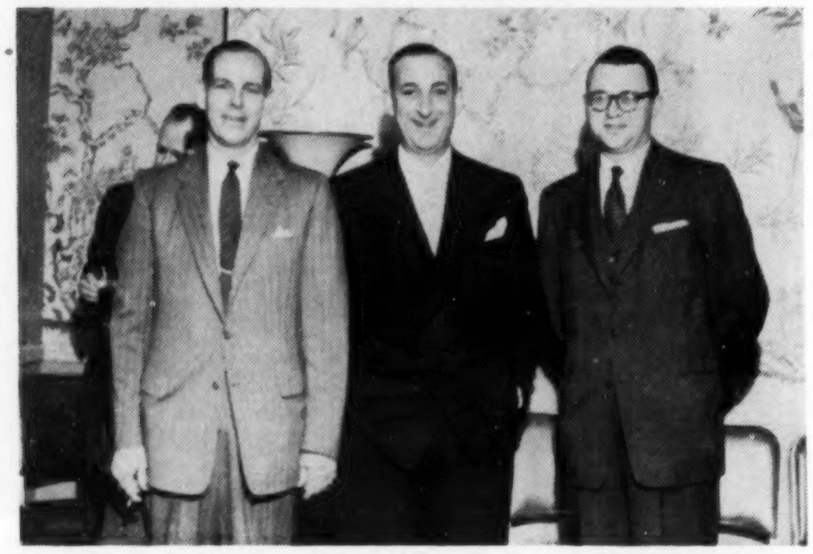


Ed Gutberlet, *Paine, Webber, Jackson & Curtis*, New York City; Milt Capper, *Capper & Co.*, New York City; John FitzGerald, *W. C. Pitfield & Co., Inc.*

Bill Russell, *Mabon & Co.*, New York; Homer Wirth, *Mabon & Co.*, New York; Bill Burke, *May & Gannon, Incorporated*, Boston; Ed Knob, *Drexel & Co.;* Harry O'Shea, *Drexel & Co.*

Bill Battin, *Blyth & Co., Inc.*, Philadelphia; Jack Dempsey, *Kidder, Peabody & Co.;* John Derickson, *Blair, Rollins & Co., Incorporated*

Joe Laut, *Jenks, Kirkland & Grubbs;* Al Willis, *H. M. Byllesby and Company, Incorporated;* Coit Williamson, *Schmidt, Poole, Roberts & Parke;* Desmond McCarthy, *Union Securities Corporation*, N.Y. C.



Jim McFarland, *Hecker & Co.;* John Stein, *Wm V. Frankel & Co. Incorporated*, New York; Bob McCarthy, *First Boston Corporation*, New York City

Phil Clark, *Amos C. Sudler & Co.*, Denver; Ed Welch, *Sincere and Company*, Chicago; Vic Mosley, *Stroud & Company, Incorporated*

A. L. Hutchinson, *Kidder, Peabody & Co.;* Floyd Justice, *Kidder, Peabody & Co.;* Henry Bruns, *T. L. Watson & Co.*, New York City

Leighton McIlvaine, *Goldman, Sachs & Co.;* Bud Schaufler, *Schaffer, Necker & Co.;* Frank Coleman, *Gregory & Son, Incorporated*, New York; Austin Patterson, *First Boston Corporation*

Securities Salesman's Corner

By JOHN DUTTON

Mrs. "Ima Doubter" Got the Checks

The story I am going to tell you this week comes from the actual experiences of a friend of mine who has quite a record selling Mutual Funds. This man is a wholesaler for one of the more progressive Mutuals and quite often he goes out of his way to assist some of his salesman friends in closing business. This is the way it goes.

He was having an interview with a country doctor who had the reputation of being quite a wealthy man. This doctor had bought some securities in his day with the result that he had made a few mistakes. The salesman in this instance had set up the interview with the wholesale man in order to explain how it was possible for the doctor to achieve a very satisfactory return through the purchase of three Mutual funds that would provide him and his wife with a monthly income return.

After a discussion the doctor was somewhat skeptical. He said he believed he would be better off buying individual stocks. Then he complained that he wouldn't pay any one a 4% initial fee when he bought a Mutual fund (the sum that was being considered was $50,000 and the 4% applied). He said he didn't want to be hooked for $2,000 just to buy, adding that if he wanted to sell he would be out that much money. These objections were answered but it was becoming increasingly clear that no sale would be made.

Meanwhile my wholesale friend noticed that the doctor's wife was sitting quietly in a chair and was reluctant to enter into the discussion. She continued to stay aloof even though several questions were asked of her and she gave a non-committal answer. Finally it became clear that no sale could be made unless the attitude of the wife changed. She began to act almost hostile and although she said very little her face told the story. Sensing the situation, my friend told me that he decided to try drastic methods and if they didn't work the sale was lost anyway.

He turned to the doctor and he said, "Doctor, how would you like to make your wife happy?" He replied, "What do you mean?" She stopped her sewing, looked up, and stared at the three men who were previously talking securities and **now started to discuss her.** "Why just this," the salesman went on, "I realize that we have been talking about an investment for you both, but I can see that you just haven't become convinced that this is the time for you to act. So I would like to make a sensible suggestion. I am not going to suggest that you invest a sizable sum as we have been discussing at this time. I think you s h o u l d have this monthly income. I believe that your wife should **get a check every month.**" Then he turned to her and he said, "You see Mrs. Prospect what I am suggesting is that you have a check every month. This isn't the sort of investment that you have been probably thinking about—one that is speculative and like a lot of things that may pay you and may not. This investment is backed up by over 300 of the finest business firms, steel mills, electric plants, manufacturing and chemical firms in this country. A great bank will send you a check every month from the dividends paid by these companies. This is something that will mean income for you on the fifteenth of every month and the postman will b r i n g you the check." Then he noticed something. No longer was the doctor's wife sitting there with a pained expression of doubt on her face. The air had cleared and she said, "That's what I want—you say that I will get a check every month." "That's right," said the salesman, "all that the doctor has to do is to tell me if he will OK this and I'll take care of all the rest." By this time the doctor was looking like a cornered rabbit with a couple of hounds at his heels. "Nope," he replied, "I still can't see it. I'd rather buy some stocks and pick 'em myself." With that, the wife took over. "So that's what you say. Well, I am going to tell you right now I have had about enough of your buying this and buying that. How about the stock you bought three years ago that was supposed to double in value in six months. Where is it now? How about those others? I like this idea. **I want to see some checks come in here and if this man is right I think you ought to buy some of this and let's give it a try.**"

The sale was made for $5,000 and the doctor signed a simple order directing the trustee bank to send the checks made payable to his wife. About a year later my wholesale friend was back in the doctor's home town to call on his dealer friend. He had looked over the records and he noticed that the doctor had bought quite a lot more of the three funds. He mentioned it to this dealer who began to laugh. "That was a good one you suggested to the doctor—the last time I saw him he told me that if you ever come back to town he will be looking for you with a shotgun. Do something for your wife, you told him. He's now got $82,000 worth of those three funds and he says his wife won't leave him alone. Every time he saves a few hundred dollars he has to hide it because she keeps hounding him to put it into more of them. Those **Income Checks** every month made payable to his wife have surely done a selling job on the doctor."

Now Continental Secs.

HOUSTON, Texas — The firm name of Bryan & Co., 4307 Montrose Boulevard, has been changed to Continental Securities Corp.

Joins Ferrell & Ferrell

(Special to THE FINANCIAL CHRONICLE)

GRAND JUNCTION, Colo. — Jesse B. Carpenter is now affiliated with Ferrell & Ferrell, 411½ Main Street.

Continued from first page

As We See It

Republican party, as well as the large New Dealish element in it, during the past few weeks makes it clear beyond peradventure of a doubt that the view of the late Senator was, or at all events now is, shared widely.

Economic Hypochondriacs

One can scarcely escape the impression that we are developing, if in fact we have not developed, a nation of economic hypochondriacs. Certainly, there can be no doubt that this ailment is common enough among the politicians of both parties. There is entirely too much disposition among us to rush to the doctor every week for fresh examinations to be sure that there is not something wrong which has as yet given no evidence of its presence—and perhaps to convince the doctor that that ailment he has not been able to discover is really present in some sort of incipient stage and to persuade him to begin treatment for some infirmity the presence of which he is far from certain. The doctor on his part in these circumstances, wishing to retain his patients, is constantly under pressure to yield more to his patients' desires than to his own better judgment.

For our part, we have for some time past been suspecting that we are in more danger from patent remedies than from any ailment for which these prescriptions are professedly written. We gladly leave forecasting to those who feel they have found the way to look into the seeds of time and say which grain will grow and which will not. What we can say with assurance is that the great depression of the 'Thirties to which may be traced the morbid state of mind now evident all about us was the ultimate outcome of the economic and financial sins of World War I and the decade which followed it, and that the steps now proposed for a prevention of a repetition of that experience bear a very close and deeply disturbing resemblance to those which caused it.

The New Deal copied the economic vices of the 'Twenties and forgot about the virtues. It was not able to banish unemployment, or even to make a great deal of headway in that direction. The drugs of the 'Twenties had lost their virtue by the 'Thirties. It was World War II which at long length put the idle to work, and it has been World War II and its aftermath which, along with the continued inflation of the late 'Forties and early 'Fifties, have kept the pot boiling. Now we are trotting out the same old remedies which failed in the 'Thirties—which in point of fact in a somewhat different form were in substantial part responsible for the distress of the 'Thirties.

New Names for Old Drugs

The fact that the drugs have meanwhile been given a new name, and at times, perhaps, are carried in a different solvent, need not and should not deceive anyone. A year ago all but the die-hards among the New Dealers and the Fair Dealers were conceding that monetary and credit management had during the war and the earlier postwar years been enslaved to a Treasury which wished to get its billions—even hundreds of billions—for as nearly nothing as it could by any sort of device. Something that was labeled an "independent" Federal Reserve system was fairly well established before the present Administration took office in Washington, but spokesmen for that Administration were quick to give their approval, and all but universal praise was bestowed upon the powers that be for their money market policies which basically were said to be designed to give natural forces free play, or at least relatively free play.

But how different now the picture! Free monetization of the Federal debt—or anything else handy—which was then regarded as the root of great evil has now become the prescription for our salvation. Free reserves, which a year ago were negative in the amount of some three-quarters of a billion dollars, by end of last year were positive by more than a billion and a half. They are still large. There has been technically no pegging of any particular rate, but Treasury bills now yield 1% or less. The rest of the list is behaving similarly. The Federal Reserve authorities have done about all they could to encourage business to borrow and spend. About the only increase in bank borrowing so far observed has been by farmers who formerly got their funds from the Treasury via the Commodity Credit Corporation, and possibly by business establishments which are pressed by the failure of the Treasury to make progress payments on defense contracts as freely as heretofore.

The Lord only knows what will next be done by the frightened politicians in Washington, but all they talk about are steps the like of which brought the evils we now suffer.

Continued from page 9

Color Television

and, therefore, three-quarters of a million phosphor dots.

Also the heavy internal structure of the tube is eliminated and the six pounds is reduced to only six ounces.

Another important good point in this tube that shows excellent promise in larger tube sizes is the fact that with a spherically shaped aperture mask and spherically shaped color plate, many of the problems such as focusing, fringing, and dynamic convergence should not increase materially when going to larger sizes. These apparently are primarily the reasons why the RCA type has not yet appeared in 19 and 21 inch sizes.

The CBS tube also shows a real possibility in being made in rectangular shapes which should be another important factor. These tubes have only been produced, so far, in laboratory quantities with production scheduled to start within the next six to nine months.

The third type of color tube is substantially different in basic operation from the other two. It is the chromatron tube, or sometimes called the Lawrence tube as it was developed by Dr. Lawrence of the University of California, and is being promoted by the Chromatics Laboratories.

If you will take a look at the diagram at the top of the slide, you will observe that it uses only one gun which projects the electron beam through a mask, but this time it is called a focus mask instead of an aperture mask.

The focus mask consists of a heavy frame across which very fine wires are strung horizontally, approximately 15 mm. apart. Then just forward of it, is a color plate, but instead of the triads of dots, it has horizontal lines of red, blue and green phosphors that are 15 mm. wide and correlated with the wires.

As the electron gun projects its beam through these wires, a voltage is applied to them that at one moment will allow the beam to go straight through and pick up and energize one line of phosphor, or tilt it up just enough to pick up the line of phosphor above it, or tilt it down enough to pick up the line of phosphor below it.

As the beam alternately tilts up and down and, at the same time, sweeps horizontally across the face of the color plate, the pictorial content of the picture is developed.

This type of tube also has the advantage of being simpler in construction, but its most important advantage is the possibility of a brighter picture, for in the RCA type of tube, the holes in the aperture mask are so tiny that it is estimated that only about 15% of the electrons get through the mask to energize the color dots.

The rest of them are absorbed by the mask, whereas in the chromatron type of tube, almost all of them get through because of the greater spacing and the voltage applied to the wires tends to accelerate them. This is sometimes called post acceleration.

At the present time, however, this tube also has some very serious defects. The quality of definition in the picture is substantially below the other two, both in color and when reproducing monochrome programs.

Because of the sweep power required by the tube and the frequency, it causes it to radiate interference and seriously affect other communications services. Shielding the tube and the receiver sufficiently to get this radiation down within FCC limits appears to be a very difficult engineering problem as well as to add substantially to the cost of the receiver.

Also, while the tube itself seems relatively simple, the cost of components in the receiver is quite high. One or two manufacturers have already announced that they will use the chromatron tube in their first models of color receivers and they are probably assuming that they can get by with the poor resolution, and they may for a short period of time.

But it is my personal opinion that after the glamour of the larger size and slight improvement in brightness wear off, the customer will become extremely critical of the definition and picture quality; particularly since such a high standard has already been established in today's black and white receivers.

As time goes on, however, I think it is reasonable for us to make this practical assumption: That the future ideal picture tube will probably be a hybrid variety incorporating many of the good points of these three and eliminating to the greatest degree possible the objectionable elements.

Therefore, we might visualize a tube that would be 21 inches in size, rectangular in shape, using the CBS method of photo etching the dots on the inner front face of the tube to get the picture well forward, using the CBS type of aperture mask, using the three gun system of RCA, and using some means of post acceleration of the electron beam to get 85% of the electrons through the mask as the Lawrence tube does; and when all of these things exist in the same tube, we will have a large, rectangular, bright, clearly defined color picture.

A tube of these general characteristics could well be available in small quantities before the end of the year 1954, or it could be several years away; but when that time comes, color television will have been launched providing growth for our industry even greater than the era of black and white television.

Another important factor in good quality color television when it comes is the transmission, because it is so much more complicated than monochrome. However, within the next several years, many of the major problems should be ironed out and if it has the appeal to the advertizer and viewer that is indicated now, ways will be found to pay the increased cost.

The Near Term Outlook

For the near term, we must assume that only an extremely small percentage of television programs will be in color because they can only orginate in New York, or Hollywood, and can only be carried over the microwave network, as a full four megacycle band width of flat response is required for color and it will be sometime before the terminal equipment of the coaxial cables can be rebuilt to provide four megacycle response.

Local pick-up is out of the question for some time as color camera chains are very expensive and will take sometime to build. Color movies will fill the gap temporarily, but those produced up to now, fall short in quality as they were filmed for best screen projection rather than television transmission.

The third and last important element is the receiver itself. It is basically a standard monochrome receiver with the color equipment and circuitry added as is shown in this block diagram.

Those blocks shown in black represent a standard monochrome receiver, and red blocks represent the sections added for receiving color.

This requires a substantial number of tubes and their associated components. So the first sets using the three gun tubes will have about 35 to 40 receiving tubes and all the necessary extra parts, as shown in this chart.

For this reason, the chassis cost will be at least double a present one. The color tube is priced now at six times that of today's 21-inch monochrome tube, so add to that the extra dollars involved in cabinets, packing materials, more testing, higher factory costs and discounts from high lists, and we can realize why the first color sets will list at over $1,100.

It is interesting to note that the associated circuitry in the color section of the receiver consists for the most part of coils, condensers, resistors, transformers, etc., that are generally common to monochrome sets; so the major avenue for future cost reductions lies in the normal engineering progress of reducing the number of tubes toward the theoretical minimum of 25 to 30 tubes and in reducing the cost of color picture tubes by engineering and mass production. This, of course, will take several years.

During the early stages of color TV, we will all have to give great consideration to the service problems connected with it, because it is such a new and complicated art; because we are adding so many more tubes and other electrical components; because there are so many more conditions introduced that can cause a bad color picture as related to today's monochrome pictures.

For example, on this slide we show the additional number of variable controls that have to be used on a color set as related to those on a monochrome set. You will observe that while there is only one more control to be operated by the customer, there are many more controls that have to be preset by the serviceman.

These can only be set properly under good color transmitting conditions and with the limited number of color transmissions available, it is going to present him with quite a problem.

He also will require a very extensive and additional education in the reasons, "why" and "what's happening" when he adjusts these various controls. Therefore, if he is going to be adequately prepared to cope with his responsibilities, he has to become much better acquainted not only with the electronics art, but also with the science of color, and the science of optics, especially as related to the human eye.

No Conversion of Monochrome Sets Into Color Receivers

Another point that I think we should cover, but which is probably already apparent to you, is that it is completely impractical and uneconomical to convert anyone's present monochrome receiver to a color receiver.

Since only a small part of the present set would salvageable, and even if the serviceman was sufficiently qualified, the cost of doing it on a service, or job shop, basis would completely offset the

amount of salvage of the present equipment.

By now, you have probably come to the conclusion that because of this long discourse I've given you on the problems of color television that I'm out gunning for the finest Santa Claus this industry, or any other one has ever envisioned—that's not the case.

I'm probably more enthusiastic about color than any man in this room, but mine is long range enthusiasm, two to five years, not two to five days, weeks, or months —and for these very good reasons.

First—Color television is a tremendously complicated art and it will take several years for it to shake out and reach prefection. This is good as it will require the engineering know-how and resources that only a handful of the top television companies possess. Motorola places itself well within this group.

Second — Motorola engineering has been working in the color field many years and we receive so many indications that our progress equals the best that we enthusiastically accept this engineering challenge.

Here is a picture of Motorola's first color television set on which the design has already been completed and which we now have in limited production.

It uses the RCA type of color tube which produces about a 12½ inch picture. Our plan is to use these sets during the first half of 1954 only for field testing, but in every part of the country where color transmission is available and under every conceivable set of field conditions that can possibly develop.

This will help us tremendously from an engineering standpoint to prove out in actual field operation all of the work that we have been doing in the laboratory for the past several years. It will help our factory organization to become much better acquainted with all of the problems in the manufacturing of color receivers, and it will be of great value in educating our field service organization, the distributors and dealers.

It is reasonable to assume that by the middle of next year, great strides will have been made in bedding down the whole color situation. By that time also, production of color tubes should begin to step up sufficiently and we may even have larger tubes by that time.

Remember that color TV is the big pot of gold we have all been looking forward to, so let's all be sure that you launch your program into these golden years on a very firm and solid foundation.

Motorola is starting its own color training school on Feb. 8 and we are starting with our distributor service personnel. As soon as they are adequately trained we will have schools for those dealers who are interested in having their service personnel trained by Motorola. Our present thinking is that the school will be for a three week period and this, of course, is for men who are fully trained on present black and white television. You can therefore see that it will take considerable time to train even qualified service personnel — indicating the further complexities of color television.

Test Equipment

You will also be interested in test equipment necessary to install and service color sets. For those dealers who are completely equipped for black and white and interested in a minimum expenditure to service color television, it will require approximately an additional $600 in equipment. This is what you will need:

A white dot generator—about	$325
A teledapter—about	$275
Total	$600

If you are starting from scratch and have to buy "the works" it will cost you just under $2,000.

A complete set of test equipment includes:

Oscilloscope with wide pass band	$500
Sweep generator	$400
Dot generator	$350
Std. signal generator	$575
Vacuum tube voltmeter	$100
Total	$1,925

If you are in a UHF market, add another $950 to both of the figures. It's rough—but it's necessary.

From this you can see that getting into color service will require a substantial amount of money and training time.

You will recall on Dec. 17 the FCC officially approved color television.

On Jan. 29, after a 40-day waiting period on what is termed the Federal register, the ruling will be considered official, and at that time any broadcaster and any network can emanate any color program they want within the standards that have been established and any receiver manufacturer can produce and promote a color television receiver in whatever practical fashion that if he desires to do so.

So it is our wish tonight to talk to you, after having covered previous subjects, as to a practical approach to getting into color television as a dollar and cents profit business. The complexities of color television that I previously discussed indicate that a color television tube will continue to be high cost for many, many months, and possibly a few years to come. A color television tube, like a baby, must gestate. Things just do not come out of the blue when they are as complicated a device as a color television tube. From estimates we have been able to make, and checking with other industry sources, it seems possible that the industry may be able to manufacture enough color tubes to permit the manufacture of between 100,000 and 150,000 color television receivers.

You will be hearing a great deal from the industry in various newspaper and trade articles about the development of tube manufacturing and what the future of color television tube production may be. We urge that you be very cautious in your appraisal of whatever you might read or hear because of the excitement and interest that prevails in the color television industry; some comments may be encouraging and others pessimistic because of the various interests on the part of people in getting the stories out to you. Therefore, weigh all the information but recognize that there is a great deal to be done in getting production on a mass basis, and we feel that the year 1955, particularly the latter part, will start to show production in good quantity and quality, with the possibility of a million sets in that year.

As you have already read in the trade press, Motorola established a price of $1,150 for its first color television receiver. This has been based on the fact that due to the cost of the present parts of color picture tubes and the complexity of the circuitry any manufacturer will have in his set, this price is as realistic as is possible at this time.

If you will take the information we have already given you—and not too much of it is new as a great deal of it has been covered in the trade press—and set it off to one side, we would like to give you another picture and then we will eventually marry the two.

The second picture has to do with the broadcasting area of our business now that color has been officially approved. The networks will start broadcasting in color and you will see considerable activity on their part to get color into this area. These broadcasts will be as often as they can possibly make it, but possibly only on a once every two weeks basis during the first quarter. The programming will emanate almost exclusively from one or two locations — New York and Hollywood. All color will primarily come from network sources during 1954, and we can expect that by the end of 1954 color television will fundamentally be a national service.

The Station Broadcasting of Color

In order for a station to be in the color television transmission business it must equip itself with at least one general kind of equipment, and that is a set of monitoring equipment. This equipment costs the station approximately $20,000. It will be available to the stations that want it in reasonable supply all through 1954. Now, not every station in the country could carry color today if it had a monitor because color must be networked to the stations in one of two ways. One: over a continuous microwave relay; or secondly: over at least a partial cabled connection.

The telephone company has adequately arranged its circuitry on the microwave relays to where, if your town is connected with New York or Hollywood with only microwave relay, they can carry the very complicated color signal. But if you have any part of your network handled by cable the telephone company has not as yet had an opportunity to go out and tune up that cable so that it will carry the color information, and it will take the telephone company a fair amount of time to get around the country and do that. But we expect that they will accomplish that pretty well by the end of the year.

Some of your stations may evidence an interest in emanating some kind of color on their own. If they do there are different things that that station can do. First, if it wishes to emanate its own kind of commercials by the use of a color slide projector it will have to buy equipment in the order of $30,000, the availability of which will not start until approximately mid-'54, and it will be relatively slow in coming through. Or if it wants to go one step further and emanate its own color movies it will have to purchase a color television projector for film, which will cost somewhere in the order of $50,000. It is unlikely, however, that such a device will be available to any of your stations until the latter part of this year at the earliest, and probably not in reasonable supply until sometime in '55.

And finally, if your station is thinking seriously of broadcasting its own programs, it is going to cost them a minimum of $70,000 to equip that station with a single camera chain. Having had just a bit of recent experience in television studios, I have an appreciation of the fact that you cannot put on even the simplest program with a single camera chain; so in all probability, a station in order to do an adequate job of emanating its own live programs will have to spend somewhere in the order of a quarter of a million dollars for its studio equipment.

Any station that wishes to emanate its own color program of any kind, whether slide, film or live, will also have to make some additional investment in changes in its transmitter.

Now with this kind of situation and breakdown in the broadcasting area, how much program do we think will be available? How much show will there be for us to sell our sets against? The number of programs is a factor of the number of studios, the number of cameras, and the cost of program. There is today one good color television studio in existence at NBC. CBS is readying such a studio; and NBC is readying a second of their own.

We think there will be limited studio facilities through at least nine months of this year because a color studio is extremely complicated and costly for a network operation. The cameras will be slow in coming through because the tube that is needed to pick up color pictures is very complicated and will be in extremely short supply.

We estimate, in summary, that there will be during the last three to five months of the year an average of two hours of color, maximum, coming from any network, which will be somewhere in the order of 20 to 25 minutes of color per day coming from any net work that will give steady service to that network facility.

We expect that the program will be carried on a rotating basis, starting next week by NBC, and covering most every kind of program that you see and like on television.

Now, let us attempt to marry these facts. I have indicated that in 1954 there will be in the order of 150,000 receivers made, probably, at the most. On a basis of the number of television dealers in the United States, this would indicate that they would probably receive one or possibly two color sets in 1954. It is then quite possible that sets will find their way on the dealers' floors or in their homes and not too many color television receivers will therefore reach the public. All of these sets will be at the prices I have mentioned before and we feel that this will only have a very moderate effect on your business.

Color Television Still "A Conversational Subject"

From this you can see that color television is going to be a conversational subject and will have very little dollar and cent value to you during the year 1954.

We believe that color has a great future for each of you, and you will hear considerably more about it in the months to come. All of the information will be favorable and will indicate the possibility of color being here in this city sometime during 1954.

From a commercial standpoint it will be extremely high cost and the economics are similar in comparison to radio and television. When television first came on the horizon many of you felt that radio was doomed. Yet, during the past few years you have witnessed a very substantial volume of radio set sales. Television took its place in the economy of this country and changed radio only slightly. It was the same with the airplanes and trucks. We still have the railroads doing a very fine job of serving the public and the airplanes and trucks have taken their place side by side as another medium of transportation.

While we feel that color will be here as a commercial practicality beginning late in 1955 and maturing in 1956, it again will not replace black and white but will be a supplementary means of television transmission and receiving.

Continued from page 4

What We May Expect in Electronics

expect that this expenditure for research and development in color television will be justified by the results, to an even greater extent than previous expenditures for black-and-white television.

While the amazing speed with which black-and-white television developed into a major industry makes all of us somewhat hesitant to offer predictions, it would not be unreasonable to think in terms of even more rapid advances in color television. Improved color equipment will come continuously from our laboratories—last week, for example, a 19-inch color receiving tube was shown to RCA tube licensees, offering nearly double the picture area of the 15-inch tube now in production for the first receiving sets with the same brightness. And as this new tube was being demonstrated, the research program was well on its way into the next stage—a larger tube of another type, capable of producing a much brighter picture than any presently known tube. As sets go into mass production, development of new techniques and means of manufacture will bring better and better sets at lower and lower prices. That is the history of American ingenuity and manufacturing.

Color television receiving sets can only be sold if there are programs to be seen. This means new studios, new studio equipment, and new techniques of production. Simultaneously with the development of receiving equipment, we have also had to develop the equipment for studios and investigate the problems of producing shows for color television. In 1951 RCA and NBC equipped a small studio in Radio City and in 1952 equipped and staffed a large studio for color television in the Colonial Theater at 62nd Street and Broadway. By the end of this year, we will have another large studio equipped in New York, and one of our West Coast studios in Burbank, California, will also be equipped for color television. With these facilities the number of color shows will steadily increase. These color shows are fed to the NBC network so are available in many of the cities served by NBC. To obtain a complete service of color television broadcasting will require more studios and consequently larger capital investments.

A Forerunner In Color Television Pickup

A notable "first" was recorded on New Year's Day when NBC broadcast a live pickup in color of the Tournament of Roses Parade from Pasadena, California. This color broadcast was transmitted by 22 television stations from Los Angeles to New York. Perhaps 20,000 people saw this parade in color and I believe everyone who saw it will never be satisfied to see it again in black and white. This was the forerunner of many more pickups of outstanding events that will be brought to the television audiences of the future exactly as they happen. Color brings reality to television.

We can safely assume that this process of continuing research and development in color television, by RCA and by other companies, will be commercially rewarding on a substantial scale in the next few years. New developments have a way of following one another so rapidly in electronics that we cannot foresee some of the further improvements that will be made in the color system by the time it is as fully established as black-and-white television is today. How long will it take? Your guess is as good as mine. During the first two years of commercial operation of black-and-white television, there were many "prophets of doom" for this industry. Color television also has its "prophets of doom."

Other Electronic Research

But what about the other lines of electronic research to which the industry is devoting its talents and its funds? The products of research cover a staggering range of communications devices, business machines, household appliances, safety devices and military weapons. Many of these—and I shall mention a few in more detail—are already in use, but are undergoing constant improvement and finding new application in ways that are certain to make for better working and living for all of us.

The transistor, a tiny device that performs many of the functions of the vacuum tube while using only a fraction of the power required by a tube, was unknown until in 1948 a new principle of electronics in solids was announced by the Bell Telephone Laboratories. Today it is the subject of intensive research throughout the electronics industry and it is already being used with considerable saving in weight, space and power in such devices as telephone circuits and hearing aids.

Our RCA scientists and engineers have given us a glimpse of the transistorized future in the form of tiny, personal radio receivers. One experimental model is little larger than a package of cigarettes and can be carried easily in the breast pocket of your suit—yet its performance compares to that of a standard portable radio. Commercial production of such pocket radios may not be far off. This is only one aspect of the future—our scientists have already demonstrated the practical application of transistors in more than a score of familiar devices in the radio, television and electronic fields.

Electronic research appears also to be shaping a future revolution in American business methods with the development of electronic business and calculating machines. You have heard of some of these devices, built by RCA and others for the government, for universities and for laboratories. Continuing research today points the way ahead to practical electronic devices in standard business use, handling many tpes of information with unprecedented speed and efficiency. Technical methods now known would make it possible to develop electronic machines that could do the clerical, statistical, accounting and other operations of a major Stock Exchange. In the next few years electronics will do many of the operations of large business offices.

Industrial television is yet another field of untold promise. In a few short years, this rugged work-horse of television has been put to uses that range from the constant inspection of dangerous industrial processes, the rapid checking of bank records and the swift and accurate counting of blood corpuscles. Its uses today, we know, are a fraction of its applications in the future, thanks largely to a continuing research and engineering program that already has reduced the cost of industrial television and improved its performance many times beyond that of the original models.

Magnetic Tape Recording Of Sight and Sound

If time permitted, it would be possible to discuss many more new, ingenious and vitally important electronic devices nearing the end of their initial research phase. There is magnetic tape recording of sight as well as sound, demonstrated recently by RCA as a means of receiving, storing and reproducing color and black-and-white television programs. Ultimately, this can be expected to lead us into an era of electronic photography, with magnetic tape replacing film in many functions. There is a wide range of new electronic devices for military use, extending our ability to control and guide offensive and defensive weapons and to detect the approach of hostile forces over ever greater distances. There is the almost limitless application of electronics to the home in new methods of lighting, heating and cooking, of entertainment and education.

A very recent product of research probably will have great impact in the future of electronics. Two days ago at a press demonstration, General Sarnoff showed an atomic battery in which atomic energy is converted directly into electric power. This atomic battery was devised by physicists at the David Sarnoff Research Center of RCA, at Princeton, New Jersey. In its present form the electrical energy obtained is small but of sufficient quantity to operate a transistor audio oscillator.

The process is still in the pioneer stage, and we cannot know at this point all the uses to which this direct conversion of atomic energy to electric energy may be put. But it holds out the prospect of an entirely different type of power source that may ultimately be of major importance.

These glimpses of electronic research today, hitting only a few of the high spots, are perhaps enough to indicate that there is no present limit to electronic development. There is a vast range of human activities, commercial, industrial, domestic and recreational, in which the electron can and will take over on an increasing scale. Our progress toward this goal is based on our continuing substantial investment in electronic research, which already has paid for itself many times over in the creation of a great new industry of growing importance to our individual and national well-being.

Francis I. duPont Co. Opens Akron Branch

AKRON, Ohio—Francis I. duPont & Co., member of the New York Stock Exchange and other principal security and commodity exchanges, has announced the opening of an office in Akron, Ohio, in the First National Tower Building. Jack Karn is manager. The company's "Network of Service" now numbers 32 offices from coast to coast, and two abroad in London and Lausanne. 19 of its offices have been opened since World War II.

Alfred Rhett duPont, a senior partner, said the expansion of Francis I. duPont & Co. is continuing evidence of its faith in the future of the American economy—and demonstrates the success of its concept of investment research, a service which now distributes more than 750,000 pieces of research material each month.

Since its organization in 1931, Francis I. duPont & Co. has become one of the country's leading investment firms, rendering service in every branch of the financial field, including investment banking.

Public Utility Securities

By OWEN ELY

Houston Lighting & Power Co.

Houston Lighting & Power has had a remarkable growth record. Starting with $2 million plant and equipment in 1915, the company now has over $200 million invested in plant (before depreciation). Revenues last year exceeded $53 million compared with $24 million in 1947 and $8 million in 1932. Growth in output over the last 20 years has been at an average rate of about 12% per annum, and the management feels confident that growth will continue at the rate of 8% or more. The growth of the area is accounted for not only by the development of oil and gas production, but also by the extraordinary expansion of the chemical industry, which has invested over $1 billion in the area.

Revenues are virtually all from sale of electricity and are 36% residential and rural, 17% commercial, 36% industrial and 11% wholesale and miscellaneous. The company serves an area of 5,600 square miles with a population of 1,225,000 in south central Texas, Houston and Galveston being the largest of the 145 communities served.

The principal activities within the service area of the company are the production of magnesium, sulphur, salt, gypsum, natural gas and petroleum; the manufacture of oil tools, ships, steel and steel products, cement, paper, synthetic rubber, chemicals and chemical products, petroleum products, building materials, and food products; the processing of manganese and tin; and agriculture which includes cotton, rice, a variety of livestock feeds, and cattle raising.

The company's residential rates averaged 2.33¢ per kwh. last year which was substantially lower than the national average. The State of Texas is considered a "fair value" State, the State law providing for a reasonable return but not to exceed 8%; however, there is no State commission, regulation being in the hands of the municipalities. The Cities of Houston and Galveston have specified maximum rates for residential and small commercial customers, but the company's rates now in effect are below these maximums. The company's operating agreement with the City of Houston expired at the end of last year, and negotiations are now in progress between the city and the company regarding an extension (which will be retroactive to Jan. 1). Since the former contract included a 2% gross revenue tax, together with certain free street lights and special rates for other service to the municipality, it appears likely that the contract will be renewed amicably. The city in effect receives more from the company that it pays for service—in addition to the usual realty taxes.

Fifty-six per cent of revenues are obtained within the city limits of Houston and 78% from the larger Houston metropolitan area. Other cities in the company's area receive proportionately the same benefits as the City of Houston receives under the operating agreement.

The company feels that it is not vulnerable to industrial "recession" at this time. Industry in the area is well diversified, including about 20 kinds of manufacturing or production; no one customer accounts for more than 2% of revenues. Residential usage, which is somewhat higher than the U. S. average, is being stimulated by rapid installation of air-conditioning equipment. The company serves 321,000 homes of which 74,000 have room-coolers, and 3,300 central air-conditioning equipment; 27,000 room-coolers were sold last year in the area, and that number should be equalled or exceeded this year, it is estimated.

Air-conditioning is used to some extent every month of the year, and the company's peak load is in August. Nevertheless, the load factor during 1953 was about 59%, which is only slightly below the national average; this result is obtained with the aid of the large industrial load, some of which is on a 24-hour basis.

In the past (and currently) the company has had to buy some power, but it has been able to obtain this from several sources at an average cost of around 5 mills. In 1953 the company had a peak demand of 856,000 kw. compared with 796,000 kw. rated capacity and 836,000 kw. net effective capability. As a result of the projected construction program the company expects to have plant capacity of 1,327,000 kw. nameplate, or 1,418,000 kw. capability by 1956, compared with an estimated 1,110,000 kw. peak load. This will afford surplus capacity of 20% based on nameplate, or 28% based on capability.

Capitalization on a pro forma basis, including the recent issue of $30 million mortgage bonds, is as follows:

	Millions	Percentage
Mortgage Bonds	$110	57%
Convertible Debentures	5	3
Preferred Stock	10	5
Common Stock Equity	69	35
	$194	100%

The common stock is currently selling around 31¼ and pays $1.20 to yield 3.8%. Share earnings in 1953 were $1.99 and the budget estimate for 1954 is reported to be $2.40.

To Join A. M. Kidder Co.

A. F. Reynolds, partner in Stuyvesant F. Morris, Jr. & Co., New York City, will withdraw from the investment business in New York and will shortly be going to A. M. Kidder & Co. as manager of their Ft. Myers, Florida office, 915 First Street.

With French & Crawford

(Special to THE FINANCIAL CHRONICLE)

ATLANTA, Ga. — Erskine F. Gaston, Jr. is now with French & Crawford, Inc., 68 Spring Street, N. W. Mr. Gaston was formerly with Pruett & Company.

W. P. Ackerman Opens

(Special to THE FINANCIAL CHRONICLE)

SIDNEY, Neb. — W. P. Ackerman is engaging in a securities business from offices at 1010 Jackson Street. Robert J. Ackerman is associated with him.

With H. J. Lange Co.

(Special to THE FINANCIAL CHRONICLE)

ST. LOUIS, Mo. — Robert B. Brown has joined the staff of H. J. Lange & Co., Inc., 314 North Broadway.

Continued from first page

Television: Major Component Of Electronics Industry

on what we are talking about when we mention electronics, and, secondly, I think you should know something of the methods employed by the market research people in the industry.

The electronics engineers themselves are hard put to it to furnish a simple definition of electronics that will give the layman a complete understanding of what this field of electricity concerns. As a director of sales research, an analyzer of market conditions, and a statistician, I must confess I hardly know a volt from an ampere, and posibly many of you have just about as much technical knowledge as I have. At any rate, let's try a definition from the American Standards Association which says that electronics is "the branch of science and technology which relates to the conduction of electricity through gases or in vacuo." This isn't a bad definition, and it means that the word electronics is applied to a device or tube designed to make use of electron emission, or to the equipment that employs these components, or to the science that employs this equipment. What I am discussing today is the science that employs radio receiving tubes, special electronic tubes, television picture tubes, and the so-called solid state crystal devices. In other words, we are talking about such things as television, radio, and radar, but not about home lighting or electric refrigerators or cake mixers.

In going about the business of being a director of sales research, I probably use exactly the same kind of props that you do. Financial analysts couple known facts and figures from the past, current conditions, and some crystal ball gazing into the future to determine whether a certain stock is worth buying; we do the same to determine where our markets are weak, where they are strong, what sales methods should be employed, the best going rate of production for the months ahead, and many other points of information.

Much of your work is accomplished if you have reliable sources from which to draw historical and current facts. In the electronics industry we are extremely fortunate in having the Radio-Electronics-Television Manufacturers Association, known as RETMA, which compiles the most exact and reliable industry reports that I know of. If your credulity is strained by the facts and figures I shall recite later, let me say now I believe our predictions can come to within at least 80 to 90% of accuracy, and possibly better, by an extension of past trends, well defined by RETMA, and by the application of logic to known historical and current facts, painstakingly and faithfully set down by RETMA. In other words, I am not a soothsayer, but I do draw certain conclusions from available information.

In discussing the various phases of the electronics industry, I shall touch first on the entertainment aspect, which includes radio and television. In this field, there is extremely reliable data available, and plenty of information concerning correlative facts, such as the number of wired homes, the rate of family and new home growth, saturation points, and so forth.

In the field of electronics manufacture for national defense, there is good data available to the analysts, but it is neither as fluid, nor is it made available as frequently as that pertaining to the amusement field.

There is very little data available on the industry's past and present performance in the field of electronics manufacture for industry and commerce. However, because the industrial-commercial field has developed so much less rapidly than the amusement and defense fields, the sales and production totals do not constitute an important percentage of the grand total, and, therefore, the absence of data does not seriously detract from predictions of the future of the industry as a whole.

In considering the amusement, national defense, and industrial-commercial aspects of electronics, we are thinking in terms of end products, which means that there are two corollary fields to be considered. One is the manufacture of the electronic components from which these end products are made. We can talk with confidence about two of the major groups of electronic components—radio receiving tubes and television picture tubes—and have a somewhat less clear view of the other groups of components, such as crystals and special tubes. The other corollary consists of the developments that have made electronic end products possible, and our information here varies from excellent to bad. For instance, we have an excellent idea of the number of television and radio stations, the extent to which police communication has been electronified, the number of short wave taxi radios, and a great variety of specific data that are known because Federal Communications Commission licensing records are available. We have a reasonable amount of information concerning government purchasing for national defense in the past and its plans for the future. At the low end of our communications line is information about developments that would help to furnish a trend in the industrial-commercial field. There is little data available on such things as the electronic computer business, developments in the application of electronics to industry, and the like.

Having reviewed the nature and quality of our sources of information for predicting the future of electronics, and before swinging into the actual predictions, I am assuming that you will accept the underlying premises for these predictions and, therefore, will accept my figures, unless, of course, you question my arithmetic.

Entertainment a Major Field

One of the two major fields within the electronic industry today is entertainment electronics. Within the field of entertainment electronics, television is, of course, monumentally the largest factor. A few of the gloomier economists have described the condition of the television industry, as far as future sales are concerned, in adjectives such as slow, weak, or sick. Actually, the television industry is none of these. It is a brisk, zestful, very young industry that, believe me, over the next decade will have more growth in it than there has been growth from the inception of television to the present time. It is healthy and sound. Furthermore, 1954 will be no exception.

To illustrate this point, let us put a microscope on the trade gossip about the state of the television industry during 1953. Contrary to popular opinion, that year was an all time high on dealer sales to the public with a volume approximating 6,600,000 sets and exceeding by big margins the three biggest previous years which are respectively, 1950 — 6,166,000 sets; 1951—5,733,000 sets, and 1952 — 6,145,000 sets. What happened to the industry in 1953 was primarily an inventory correction resulting from abnormally optimistic production schedules that were obtained in the industry during the latter part of 1952 and the first part of 1953. . . . inventories which were commonly described as far too top heavy, were during the late summer of 1953 much lower than they were in 1951, and the situation now has been corrected almost entirely. The probable inventory level, including factory, distributor, and dealer, as of Dec. 31 will be 1,900,000 or less, and in my opinion this is not greatly in excess of what is absolutely required to maintain the normal movement of sets through the various channels of distribution to the public.

We expect that some day there will be just as great a percentage of television homes as there are radio homes today, and today there are 43,100,000 radio set homes in the United States. To study this situation objectively, let us look at Exhibit 1, in which we have arbitrarily divided the United States into groups which are classified according to the nature and caliber of television reception. Group No. 1 are those sections of the United States where television signals came early and television saturation gained rapidly. Group No. 2 is similar except that the signals came later, saturation moved more slowly and, to conclude an analogy, obtained in 1953 new signals, either VHF or UHF, bringing their characteristics as far as television signals are concerned to the level approximating Group No. 1. As you will observe, this leaves only a small percentage of the population of the United States still to receive a signal, and of that small remaining balance, Group No. 3 represents the areas where signals will be made available during 1954—11.6%; Group No. 4 for 1955—2.3%; thereby leaving us Group No. 5, representing only 1.4% of the United States in which television signals, if they come at all, will be during 1956 or later. In other words, the country will be virtually blanketed by good signals come the end of 1954, and the entire country with a good signal by the end of 1955 except the infinitesimal number of homes in very fringe territory. The balance of the exhibit is self explanatory. It shows the percentage of homes in each of these groups actually owning sets at the end of the years listed and projections have been made through the next few years to illustrate the very conservative basis on which projections for future saturations have been calculated.

Now lest some of you think that I am completely bereft of reason having painted such a bright picture in face of the fact that 49% of the country is already 85% saturated and another 36% saturated to a degree of 40%, let me point out that industries seldom exist on the basis of initial installation sales only. For example, how much does the automobile industry today rely on selling autos to persons who have never owned a car before? Not very much. Initial sales rapidly are losing their importance in the television industry. Assuming marked significance are some such factors as wear-out, obsolescence of sets, number of new homes, and the coming era of second-set television homes just as today there are homes with anywhere from two to a half-dozen radio sets. Some people within the industry have predicted 5,000,000 television sets will be sold in 1954, as compared with 6,600,000 sets sold to the public in 1953.

Let's analyze that 5,000,000 figure. If only 5% of the sets now in use are replaced for reasons of wear-out or obsolescence in 1954, that means a sale of 1,300,000 sets. If population growth and establishment of new homes this year proceeds as expected, this might mean the sale of 600,000 more sets than if the population and number of homes had remained static. The growth of the second-set idea might mean the sale of another 300,000 sets. These figures add up to a sales potential of 2,100,000 sets in 1954. Subtracting this from the predicted figure of 5,000,000 sets, that leaves only a little less than 3,000,000 sets to be marketed on an "initial sale" basis. That initial sale figure seems very low to me. On the basis of today's radio homes, there are right now about 16,000,000 homes without a television set where good signal now is available or will be available by the end of 1954. Does this mean that we will sell less than one in every five householders who do not own sets? History says we will do a lot better than that. To illustrate my point, please review Exhibit No. 2, which demonstrates that as of today there are still 17,400,000 homes to whom a set can be sold and by the end of 1954 there will still be 13,400,000 such homes. Therefore, I think there will be a minimum of 5,500,000 sets sold in 1954 and possibly as many as 6,500,000 sets sold. The average cost of a television set is $170 factory price. If we sell a half-million more sets than some of our industry have predicted, that will mean an additional $85,000,000 to the industry; if we sell a million and a half more sets than those predictions, that will mean $255,000,000 more than anticipated to the industry.

As I mentioned previously, the prediction of our future market for television rests entirely on assumptions which I believe are very realistic regarding the increment of saturation, the impact of the second-set home and the normal wear-out or obsolescence of sets in use. All of this is illustrated on Exhibit No. 3 and indicates to me that the long term potential for television will certainly range between 5,000,000 and 8,000,000 per year well into the predictable future. Add to this market, the normal, the healthy demand for home radio sets, auto radio sets; it is apparent that we have a very healthy industry in those fields which are commonly referred to as amusement devices. Exhibit No. 4 outlines the premises on which these predictions rest and the probable demand for sets during the next eight or 10 years. All of this material is recapped on Exhibit No. 5, showing the number, the value per unit, and the total dollar value at factory door of these devices and the sum total of these dollars. As compared with the public payments for personal consumption expenditures, the ratio of these amusement devices purchased to the public's total consumption expenditures is still far less than 1% and as you will observe, so predicted well into the future. This seems to be one more indication of the conservative nature of these predictions. Total television sets, for example, at the factory level, in 1953, exceeded $1,100,000,000. 1953 was the biggest year yet recorded in the industry and approximately 6,600,000 sets were sold to the public. This year, as already noted, unit sales will fall off a bit, but dollar sales will still be substantially over the $1,000,000,000 mark. Looking farther ahead to the three year period, 1957-59, we think annual sales may be nearly 6,900,000 units and that dollar volume will average higher than $2,000,000,000 a year due to color, and in the three-year period 1960-62, it is entirely possible that the annual unit average will hold firm at nearly 8,000,000 sets and that dollar volume could increase to over $2,400,000,000 a year because of the higher percentage of color.

In other words, dollar volume of television set sales seven or eight years hence, will be just about double what it is today. The increase will, of course, be attributable to a steadily increasing number of color sets. While it is probable that no more than 150,000 color sets will be produced this year, it is expected that something like 46% of the total will be color sets in the 1957-59 period, and that in 1960-62, color will account for nearly 80% of all sets sold. As you can see, color is on the way, but it will be some time before color sets will be marketed in large quantities, and it will be at least four or five years, or even

Continued on page 44

Continued from page 43

Television: Major Component Of Electronics Industry

longer, before color sets sales catch up with black and white.

Has television crowded home radio off the map? Hardly so. The manufacturers sold 7,000,000 home radios last year for a total volume of about $113.000,000, and it is expected another 6,000,000 sets, at a total close to $100,000,000, will be sold in 1954. Market surveys show that more people than ever before are listening to radio and that during the daylight hours, when the housewife can't stay in one room, the radio is turned on more frequently than the television set. Will this apply when the television ownership becomes more universal? It seems indicated that over the 1957-59 period, nearly 7,800,000 radio sets, grossing over $126,000,000, will be sold each year, and that the average home radio sale in the 1960-62 period will be in the neighborhood of 8,500,000 sets, at a total of nearly $138,000,000.

The sale of entertainment radios for automobiles will be linked very closely, of course, to the rate of automobile production. It does seem a certainty that virtually every pleasure car will be equipped with an entertainment radio. Our researchers show that 5,200,000 auto sets, totaling $150,000,000, were sold in 1953 and that another 4,100,000 aggregating $123,000,000 will be sold this year. Auto set sales in the 1957-59 and 1960-62 periods should average from 3,600,000 to 3,800,000 a year, at a dollar volume running between $108,000,000 and $114,000,000.

As pointed out previously, we have excellent industry data on at least two of the very important components going into these electronic devices. I am referring, of course, to the receiving tube market and the picture tube market. Predicting the renewal market for these tubes well into the future can be done with a considerable degree of certainty. The one sure thing in calculating this sort of projection, is the easily predictable rate at which these wear out and must be replaced if the owner has to keep this set in repair. . . . The tube business which in the last few years prior to World War II was running along at an annual rate of $10,000,000 to $12,000,000 per year, has already expanded to a business which in 1953 exceeded $150,000,000, and which is expected within another five or six years to exceed $400,000,000, and may very well exceed $600,000,000 within the next eight or nine years. Similar assumptions can be made regarding the determinants for tubes to be used in initial equipment and in the export market. . . . The total tube business, export plus renewal, which ran about $30,000,000 per year prior to World War II and equalled in 1953 a volume of $575,000,000, will certainly exceed $1,000,000,000 by 1957-59 and may very well hit a peak of $1,500,000,000 by 1962. The last factor in entertainment devices is records and phonographs, which should maintain a fairly level volume of sales of between $120,000,000 and $130,000,000 a year, at a minimum, over the next decade. In fact, I have heard the high fidelity market alone described as potentially a $200,000,000 business.

These totals are impressive. The electronics industry sold $1,500,000,000 in end products for entertainment purposes last year, and this year is expected to sell over $1,400,000,000. . . . But look ahead for just a few years. The average annual sale of entertainment devices we believe will increase to over $2,200,000,000 in 1957-59 and to over $2,400,000,000 in 1960-62. In approximately seven years we will increase our entertainment end product sales by over 60%.

By far the largest customer of the electronics industry is the United States Government, and an overwhelmingly large percentage of government purchases is for the armed forces. Electronics has become one of the greatest weapons of war. Today, government purchases of electronics equipment comprise 6% of all government war expenditures; within the decade this proportion may increase to 10% or higher.

Much of the electronics work being done for national defense may not be discussed because of security reasons. Yet every day we read in the papers about new examples of the part electronics is playing in defense. The guided missile is an electronic weapon. The proximity fuse that explodes when it is close enough to a plane to cause damage is an electronic weapon. Radar tracks the target and fires the anti-aircraft and bombardment guns that formerly were trained by calculation or by eye and were fired manually. An average military plane contains thousands of electronic tubes that perform a host of functions.

Defense purchases of electronics equipment last year are estimated at $2,800,000,000 and the total may go up another notch to $2,900,000,000 in 1954. But as the Army, Navy and Air Force become increasingly electronified, we foresee government purchases in the vicinity of $3,100,000,000 a year in 1957-59, and about $3,800,000,000 in 1960-62. These future figures are only estimates, and it is quite possible that government purchases could double over the decade. This, of course, is based on the assumption of no shooting war.

While entertainment and military electronics offer a great future potential, production and sales already are immense. But there is one phase of electronics in which the surface barely has been scratched, where most of the the development work lies ahead, and which some day will compare favorably with the others in dollar volume. That is the field of electronics equipment for industry, commerce, and other non-entertainment, non-military uses. The figures are not too impressive now —for instance, about $267,000,000 of sales in 1953 and an estimated $274,000,000 in 1954. But, by 1957-59, we anticipate annual sales in the industrial - commercial field will be running at the approximate rate of $520,000,000, and by 1960-62 at $945,000,000. That is a gain of over 350% in a seven-year period.

We all have read about the wizardry of the electronic computers that have been introduced, but those computors are not yet common currency in offices, laboratories, and factories as they will be some day. Television will be used for quality control and safety in the factory, and in the home will watch the nursery and the kitchen stove. Electronified kitchen ranges will make the cooking process virtually an automatic one. A sort of radar system may control auto headlights and brakes. Electronic equipment will make airport operations virtually foolproof. Elevators, even in the big office building, will perform automatically. These are a few of the hundreds of reasons why we can say there is no ceiling on the potential of industrial-commercial electronic equipment.

When all of the foregoing is lumped together, it shows that the sale of all electronic end products in 1953 totaled nearly $4,600,000,000 and that this year the aggregate will be approximately the same. In another three years or so, over the 1957-59 period, we expect the end product total to exceed $5,800,000,000, an increase of 26%, and that by 1960-62, electronic end products totaling over $7,000,000,000 will be sold each year. That means that within seven years or so, the electronics industry will have increased its end product sales by nearly 55%. After considering all the end products manufactured in the electronics industry, there still remains a sizable business in the production of receiving tubes, television picture tubes, special electronic tubes, and other components for repair which amounted to $600,000,000 last year (see Exhibit No. 6) and will continue to grow as more and more end products are placed in use. I would like to point out that these other electronic components for repair include such things as capacitors, transformers, resistors, speakers, dials, knobs, etc. Unfortunately, there is no available data on the size of this market which is as reliable as the renewal tube market mentioned above. The figures quoted, however, are reasonably accurate and are arrived at by known ratios of consumption by the repairman for the use of these other components related to his use of receiving tubes and picture tubes. It is estimated that repair parts sales this year will fall not far short of $850.000,000, while in the 1957-59 period the annual average will be in the neighborhood of $1,400,000,000. In 1960-62, repair parts sales are expected to exceed $2,200,000,000, an increase of 220% over the recent going rate.

To round out the picture of the electronics industry, we must consider the broadcasting end of the

EXHIBIT 1
Television Sets

	Cumulative % Saturation Group I	Group II	Group III	Group IV	Group V	Total
% of Radio Homes located in the group*	48.9%	35.8%	11.6%	2.3%	1.4%	100.0%
1950*	47.1%	7.1%	5.0%	2.4%	1.5%	26.2%
1951*	66.1%	14.0%	10.5%	4.7%	2.5%	38.7%
1952*	85.1%	27.3%	19.7%	9.3%	4.6%	54.0%
1953**	85.7%	39.7%	26.7%	13.7%	7.7%	59.6%
1954 Range—High / Low	92%	59%	37%	18%	11%	71%
1955 Range—High / Low	96%	72%	52%	23%	14%	79%
1957-59 Range—High	100%	95%	86%	69%	44%	95%
Low	99%	89%	72%	52%	24%	90%
1960-62 Range—High	100%	99%	95%	87%	74%	98%
Low	100%	97%	90%	77%	54%	97%

*Based on Radio Homes in 1950 Census of Housing.
**Based on Radio Homes as of Jan. 1, 1954.

EXHIBIT 2
Status of TV Ownership
(000 omitted)

	TV Homes B.O.Y.	New TV Homes during year	TV Homes E.O.Y.	Non-Owners Homes E.O.Y.	Total Radio Homes	% Radio Homes
1953 Group I	15,655	2,405	18,060	3,020	21,080	48.9%
II	3,680	2,450	6,130	9,300	15,430	35.8
III	860	470	1,330	3,670	5,000	11.6
IV	80	55	135	855	990	2.3
V	25	20	45	555	600	1.4
Total	20,300	5,400	25,700	17,400	43,100	100.0
1954 Group I	18,060	1,300	19,360	2,110	21,470	48.9%
II	6,130	2,930	9,060	6,660	15,720	35.8
III	1,330	500	1,830	3,260	5,090	11.6
IV	1_5	45	180	830	1,010	2.3
V	45	25	70	540	610	1.4
Total	25,700	4,800	30,500	13,400	43,900	100.0

EXHIBIT 3
Determinants—Television Sets
(000,000 omitted)

	Sets/ TV Homes	Sets in use EOY	Replacement Rate	Sales to Public
1946	1			
1947	1	.15		.1
1948	1	1.0	10.0%	.9
1949	1	3.6	6.8	2.7
1950	1	9.6	4.6	6.2
1951	1	15.0	3.5	5.7
1952	1	20.3	5.6	6.1
1953	1.01	26.0*	4.5*	6.6*
1954 Range—High	1.03	31.5	4%	6.5
Low	1.01	30.8	2.7%	5.5
1955 Range—High	1.05	37.4	4.5%	7.3
Low	1.015	36.1	3%	6.2
1957-59 Range—High	1.13	50.8	9%	6.9
Low	1.04	43.2	6%	5.3
1960-62 Range—High	1.20	58.0	10%	8.1
Low	1.085	50.2	7%	5.4

*Preliminary.

EXHIBIT 4
Determinants—Home and Auto Sets
(000,000 omitted)

	Home Sets: Hshlds. EOY	R.H./ Hshld.	Sets/R.H.	Sets in Use EOY	Repl. Rate	Sales to Public	Auto Sets: Auto Regis.	Reg/Hshld.	Auto Sales To Pub.	Repl. Rate Cars	Auto Sets/ Cars	Auto Set Sls to Pub
1940	35.4	81.7%		42.6		9.7						2.1
1941	36.0	84.0		43.8		11.1						2.6
1942	36.5	85.0		50.6		4.0	28.0	76.7%				.4
1943	36.9	85.0		50.5		---	26.0	70.5				--
1944	37.3	85.0		50.2		---	25.6	68.5				--
1945	37.9	85.0		50.2		.5	25.8	68.0				--
1946	38.9	88.0	1.55	53.0	19%	12.4	28.2	72.6	2.0	--%	74.7%	1.6
1947	40.7	89.8	1.81	66.0	8	17.1	30.8	75.9	3.3	2.4	97.3	3.5
1948	41.4	91.7	1.93	73.4	8	12.6	33.4	80.5	3.7	3.8	108.4	4.2
1949	42.2	92.8	1.91	74.9	8	7.2	36.5	85.3	5.0	5.6	70.1	3.6
1950	43.0	94.0	1.94	78.3	8	9.2	40.3	93.8	6.5	7.2	71.0	4.7
1951	44.1	94.0	1.94	80.3	8	8.0	42.7	96.9	5.1	6.8	85.1	4.5
1952	45.1	94.0	1.94	82.3	7	7.7	43.8	97.1	4.3	7.3	74.8	3.2
1953	46.0*	93.7*	1.94*	83.6*	7*	7.0*	45.0*	97.9*	6.0*	10.9	86*	5.2*
1954 Range—												
High	46.8	93.8%	1.94	85.0	7%	7.0	45.6	98%	5.5	10.9%	91%	5.0
Low	46.8	93.8%	1.94	85.0	6%	6.0	45.6	97.5%	5.0	9.8%	82%	4.1
1955 Range—												
High	47.7	94.1%	1.94	87.1	7.2%	8.2	46.8	98%	5.7	10%	91%	5.2
Low	47.7	94.1%	1.94	87.1	6.5%	7.6	46.3	97%	4.6	8.3%	82%	3.8
1957-59 Range—												
High	50.2	94.4%	1.93	93.7	8.8%	9.6	49.7	99%	5.8	10%	91%	5.3
Low	48.9	94.2%	1.94	89.4	7.5%	7.7	47.4	97%	4.4	8.3%	82%	3.6
1960-62 Range—												
High	52.0	94.4%	2.00	98.2	10%	11.4	52.0	100%	6.1	10%	91%	5.5
Low	50.8	94.3%	1.94	92.9	8%	8.4	49.3	97%	4.6	8.3%	82%	3.8

*Preliminary.

EXHIBIT 5
Home, Auto and TV Sets
(000,000 omitttd)

	Units*: Home Sets	Auto Sets	TV Sets	Value per Unit**: Home Sets	Auto Sets	TV Sets	Dollars: Home Sets	Auto Sets	TV Sets	Total	Pers. Cons. Exp.	Tot. Dollars /P.C.E.
1940	9.7	2.1		$14.70	$16.00		$143	$34		$177	$72,100	.25%
1941	11.1	2.6		17.35	16.40		191	43		234	82,300	.28
1942	4.0	.4		24.40	15.80		97	6		103	91,200	.11
1943	--	--					--	--		--	102,200	--
1944	--	--					--	--		--	111,600	--
1945	.5	--					--	--		--	123,100	--
1946	12.4	1.6	--	27.40	26.70		340	43		383	146,900	.26
1947	17.1	3.5	.1	34.00	30.40	$288.00	581	106	$29	716	165,600	.43
1948	12.6	4.2	.9	31.40	31.60	233.00	396	133	210	739	177,900	.42
1949	7.2	3.6	2.7	25.00	29.70	190.00	180	107	513	800	180,600	.44
1950	9.2	4.7	6.2	24.00	25.90	182.00	221	122	1128	1471	194,600	.76
1951	8.0	4.5	5.7	22.90	28.40	178.00	183	123	1015	1326	208,100	.64
1952	7.7	3.2	6.1	20.00	29.00	172.00	154	93	1049	1296	218,100	.59
1953	7.0†	5.2†	6.6†	16.20†	30.00†	171.00†	113†	156†	1129†	1398†	229,900†	.61
1954 Range—												
High	7.0	5.0	6.5	$16.20	$30.00	(B&W $171)	$113	$150	$1274	$1537	$232,000	.66%
Low	6.0	4.1	5.5			(Color 1000)	97	123	1078	1298		.56
						(Avg. 196)						
1955 Range—												
High	8.2	5.2	7.3	$16.20	$30.00	(B&W $171)	$133	$156	$1883	$2172	$237,400	.91%
Low	7.6	3.8	6.2			(Color 750)	123	114	1600	1837		.77
						(Avg. 258)						
1957-59 Range—												
High	9.6	5.3	6.9	$16.20	$30.00	(B&W $171)	$156	$159	$2498	$2813	$240,000	1.17%
Low	7.7	3.6	5.3			(Color 500)	125	108	1919	2152	210,000	1.02
						(Avg. 362)						
1960-62 Range—												
High	11.4	5.5	8.1	$16.20	$30.00	(B&W $171)	$185	$165	$2470	$2820	$245,000	1.15%
Low	8.4	3.8	5.4			(Color 350)	136	114	1647	1897	190,000	1.00
						(Avg. 305)						

*Sales to Public. **At Manufacturer's Level. †Preliminary.

business from the point of view of revenues. Television and radio broadcasting revenues in 1953, together with revenues from radio telegraph and commercial cables, amounted to about $1,285,000,000, and should increase to nearly $1,400,000,000 in 1954. By 1957-59, these revenues should average around $1,500,000,000 or more a year, and by 1960-62 the total should be over $1,800,000,000 annually.

The final component making up our picture of the electronics industry is the revenue created by the sale of end products through channels of distribution. Exhibit No. 6 shows these revenues are expected to approximate $1,400,000,000 in 1954 and should increase gradually to well above $2,500,000,000 by 1960-62. Thus we see that from the standpoint of sales, the electronics industry was virtually an $8,000,000 000 industry in 1953 and that this year it will exceed that figure. In 1957-59, total sales will come close to $11,000,000,000 a year, and by 1962, we will be justified in calling electronics over a $13,300,000,000 industry.

That, gentlemen, is the electronics industry. It was virtually unheard of before World War II. It came into its own in the war years and played a very great role in helping to win the war. After the war, it sagged for a time, but gained powerful momentum suddenly with the advent of television and the upsurge in national defense.

Today, electronics is an $8,000,000,000 industry. We have very good reason for believing that in another six or seven years it will be more than half again as big. It is extremely difficult to envision any other major industry that will grow that fast between now and 1960.

EXHIBIT 6

Electronics Industry

(Factory Prices)

(000,000 omitted)

	End Prod.	Repair Parts	Brdcstg. Revenues	Revenue to Dist. Chann.	Total
1948	$1338	$NA	$462	$332	$NA
1949	1372	178	495	858	2903
1950	2127	244	611	1463	4445
1951	2695	335	743	1355	5128
1952	3937	433	854	1343	6567
1953	4591*	631*	1285*	1433*	7940*
1954 Range—					
High	$4831	$829	$1380	$1545	$8585
Low	4592	821	1373	1353	8139
1955 Range—					
High	$5591	$1047	$1510	$2080	$10229
Low	5256	1017	1503	1884	9660
1957-59 Range—					
High	$6556	$1642	$1500	$2764	$12462
Low	5895	1433	1497	2157	10982
1960-62 Range—					
High	$7694	$2663	$1830	$3116	$15303
Low	6771	2230	1823	2441	13265

*Preliminary.

Among the officers of the Club was chosen: E. D. Burdette, President (who acted as toastmaster), Frank Daines, Vice-President, Ana Matsinger, Secretary and Edward Kirchhoff, Treasurer.

NASD District No. 9 Appoints Secretary

SAVANNAH, Ga.—Appointment of George J. Bergen as Secretary of District Committee No. 9, the National Association of Securities Dealers, is announced by Julian A. Space, Jr., Johnson, Lane, Space & Co., Inc., Savannah, Chairman of the Committee. District No. 9 of the Association embraces Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina and Tennessee. Office of the District Committee is in Atlanta.

George J. Bergen

Mr. Bergen, a graduate of New York University, has been employed by the Association since 1950. For the past two years he has been Assistant Secretary of the Investment Companies Committee of the NASD.

Coffee Price Fluctuations Test of Free Markets!

March Issue of "The Guaranty Survey" also points out the reaction to the rise in coffee prices affords no credit to a people whose government, until recently, followed a policy of political controls and price supports.

"If the United States Government had never caused little pigs to be killed, potatoes to be destroyed, or cotton to be plowed under, and if it were not now withholding large quantities of farm products from the market in order to support prices, our people could accuse their South American neighbors of price-raising practices with less absurdity and better grace," observes the March issue of "The Guaranty Survey," issued by the Guaranty Trust Co. of New York.

"If South American governments had never embarked upon 'valorization' schemes or dumped coffee into the ocean, and if exchange rates were not at artificial levels, the people of the United States would be less prone to see evidence of price manipulation where none exists."

In its discussion of the coffee prices in relation to free markets, the bank publication explained that all price fluctuations involve risks, and these risks must be borne by someone. Whoever bears such a risk is a speculator in the literal meaning of the word. Price risks may be borne by producers, processors and distributors, or they may be largely shifted to professional dealers (speculators) who make it their business to take such risks.

"The risk bearer does what he can to earn a profit and avoid a loss. He studies underlying market conditions and tries to gauge coming changes in these conditions. If he believes that the outlook indicates higher prices, his natural tendency is to buy more freely in the hope of selling later at a more favorable price. These market operations do not cause the higher price. They merely reflect the conditions that do cause it.

"Those who see evil in this process make a fundamental mistake," in the view of "The Guaranty Survey." "Any change in price tends to correct the conditions that caused it. The sooner the change occurs, the more promptly the correction begins. Those who foresee coming price changes and translate them into immediate price changes perform a valuable economic service. Their operations promote stability, not instability.

"Of course, speculative markets have at times suffered abuses and excesses, as have all branches of business. However, such abuses have been less common than is sometimes supposed, partly because they are extremely risky to the perpetrator and partly because most reputable organized exchanges have adopted safeguards against them."

Hayden-Stone 25-Yr. Club Admits New Members

The 55 members of the Hadyen, Stone 25-Year Club held their annual dinner at the Antlers the evening of Feb. 24. Members of the firm were guests and Robert Stone favored the ladies with orchids; the men wore white carnations. New members receiving the award of gold watches, presented by H. G. Bell for the firm were—Mary Bitar, John Callahan, Winifred Michel and Clara Nordquist. A pleasant evening was enjoyed by guests and club members. A recording of activities was made by color film. Before the dinner, the following new officers of the Club was chosen: E. D. Burdette, President (who acted as toastmaster), Frank Daines, Vice-President, Ana Matsinger, Secretary and Edward Kirchhoff, Treasurer.

DIVIDEND NOTICE

BRITISH-AMERICAN TOBACCO COMPANY LIMITED

NOTICE OF DIVIDENDS TO HOLDERS OF ORDINARY AND PREFERENCE STOCK WARRANTS TO BEARER.

The first interim dividend on the Ordinary Stock for the year ending 30th September 1954 of fivepence for each 10/- of Ordinary Stock (free of United Kingdom Income Tax) will be payable on the 31st March 1954.

Holders of Bearer Stock, to obtain this dividend, must deposit Coupon No. 219 with the Guaranty Trust Company of New York, 32 Lombard Street, London, E. C. 3, for examination five clear business days (excluding Saturday) before payment is made.

The usual half-yearly dividend of 2½% on the 5% Preference Stock (less United Kingdom Income Tax) for the year ending 30th September next will also be payable on the 31st March 1954. Coupon No. 101 must be deposited with the National Provincial Bank Limited Savoy Court, Strand, London, W. C. 2 for examination five clear business days (excluding Saturday) before payment is made.

The Directors have recommended to the Stockholders the payment, on the 31st May 1954, of a final dividend on the issued Ordinary Stock for the year ended 30th September 1953 of seven pence for each 10/- of Ordinary Stock (free of United Kingdom Income Tax)

To obtain this dividend (subject to the same being sanctioned at the Annual General meeting to be held on the 7th May next) on or after the 31st May next holders of Ordinary Stock Warrants must deposit Coupon No. 220 with the Guaranty Trust Company of New York 32, Lombard Street, London, E. C. 3, five clear business days (excluding Saturday) before payment can be made.

DATED the 24th February, 1954.

BY ORDER OF THE BOARD
A. D. McCORMICK,
Secretary.

Westminster House,
7, Millbank,
London, S. W. 1.

Stockholders who may be entitled by virtue of Article XIII (1) of the Double Taxation Treaty between the United States and the United Kingdom, to a tax credit under Section 131 of the United States Internal Revenue Code can by application to Guaranty Trust Company of New York obtain certificates giving particulars of rates of United Kingdom Income Tax appropriate to all the above mentioned dividends.

ADVERTISEMENT

THE FOLLOWING STATEMENT HAS BEEN MADE BY THE SECRETARY,

BRITISH-AMERICAN TOBACCO COMPANY, LIMITED

1. The complexities of producing audited consolidation figures make it impossible to announce such audited figures in respect of the previous year before the date on which the first interim dividend in respect of the ensuing year is normally declared. The Directors have, however, decided that it would henceforth be more appropriate if their recommendation in respect of the final dividend were made known to Stockholders concurrently with the declaration of the first interim dividend and at the same time to announce the relevant provisional figures subject to audit.

2. Accordingly at a Meeting of the Directors held today, it was decided to recommend to the Stockholders at the Annual General Meeting which was fixed to be held on the 7th May next, the payment on 31st May next of a final dividend for the year ended 30th September, 1953, of 7 pence per 10/- of Ordinary Stock (free of United Kingdom Income Tax) (1952—1/3d. per £1 of Ordinary Stock) on the issued Ordinary Stock.

3. If the payment of the dividend is confirmed, transfers received in order at the registered office of the Company up to 3rd May next will be in time to be passed for payment of the dividend to the transferee. In the case of Bearer Warrants the dividend will be paid against the deposit of Coupon No. 220.

4. The Directors also decided to declare a first interim dividend in respect of the year to 30th September, 1954 of 5 pence per 10/- of Ordinary Stock (free of United Kingdom Income Tax) on the issued Ordinary Stock, payable on the 31st March next. This increased first interim dividend is designed to even out the dividend payments in respect of the year 1953/1954.

5. Transfers received in order at the registered office of the Company up to 1st March next will be in time to be passed for payment of this interim dividend to the transferee. In the case of Bearer Warrants the dividend will be paid against the deposit of Coupon No. 219.

6. The Directors have authorized the following announcement of the provisional results of the Group's operations for the year, subject to audit, consolidated figures being given to the nearest £1,000. The proposed transfer to General Reserve is additional to the transfer thereto from Reserve for future taxation of the surplus, amounting to £275,000, which resulted from the reduction in the standard rate of United Kingdom Income Tax effective from April 1953.

	Years to 30th September 1953	1952
The total consolidated profits, before taxation, but after transferring to Fixed Asset & Stock Replacement Reserve the balance of the devaluation surplus on stocks of dollar leaf, amounting to	£ 598,000	£ 1,047,243
were	42,297,000	42,231,431
from which must be deducted:—		
United Kingdom taxation	6,442,000	8,025,646
Overseas taxation	12,752,000	12,803,854
Outside Shareholders' interests in profits	2,956,000	2,795,408
leaving Balance of Group Net Profit	£20,147,000	£18,606,523

	British-American Tobacco Co. Ltd.		Subsidiaries	
	1953	1952	1953	1952
Apportioned, after taking into account dividends from Subsidiaries to the Holding Company	5,582,845	5,269,511	14,564,000	13,337,012
LESS: Transfer to Fixed Asset & Stock Replacement Reserves (See note below)	550,000	800,000	1,800,000	4,500,009
	£5,032,845	£4,469,511	£12,764,000	£8,837,013

Appropriations by the Holding Company are as follows:—

	1953	1952
Preference dividends (net)	£ 318,187	£ 307,125
Interim Ordinary Dividends paid—		
1/- per £1 Stock paid 31/3/53	1,187,888	2,375,776
4d. per 10/- Stock paid 30/9/53	1,185,772	
(1952—2/- per £1 Stock)		
Final dividend Proposed	2,078,804	1,484,869
Transfer to General Reserve proposed	225,000	NIL
Increase in balance carried forward	37,194	301,758
making, with the balance brought forward, less £2,163,026 (1952—NIL) appropriated to capital	£2,249,833	£4,375,663

7. The transfers to Fixed Asset & Stock Replacement Reserves, including the Leaf Devaluation Surplus, represent an estimate of the amounts which, having regard to changes in the general level of prices should, in the opinion of the Directors, be retained out of profits towards maintaining over the year that part of the real capital of each company in the Group represented by fixed assets and Stocks. Transfers made by certain Subsidiaries have been adjusted for the purpose of Consolidation.

8. There have been changes over the year in the rates of exchange applicable to the conversion to sterling for consolidation purposes of the current assets and liabilities of certain of the overseas Subsidiaries. The Holding Company's proportion of the net resulting difference on exchange of £4,326,000 has been charged against Devaluation Reserve, which was previously included in the Consolidated Balance Sheet with "Other Capital Reserves". The balance remaining on Devaluation Reserve is £6,704,000. In prior years, similar differences were charged against Consolidated Trading Profits. In 1952, the difference was negligible.

9. At the above-mentioned Board Meeting it was also decided to pay, on the 31st March, the half-yearly dividend due on the 5% Preference Stock amounting to 6d. for each £1 unit of Preference Stock, less United Kingdom Income Tax. Transfers received in order at the registered office of the Company up to 1st March next will be in time to be passed for payment of this dividend to the transferee.

10. The Directors have also decided to pay, on the 30th April next, the half-yearly dividend due on the 6% Preference Stock amounting to 7.2d. for each £1 unit of Preference Stock, less United Kingdom Income Tax. Transfers received in order at the registered office of the Company up to the 6th April next will be in time to be passed for payment of this dividend to the transferee.

BRITISH-AMERICAN TOBACCO COMPANY, LIMITED

23rd February 1954

Stockholders who may be entitled by virtue of Article XIII(1) of the Double Taxation Treaty between the United States and the United Kingdom to a tax credit under Section 131 of the United States Internal Revenue Code can by application to Guaranty Trust Company of New York obtain certificates giving particulars of rates of United Kingdom Income Tax appropriate to the above mentioned dividends.

Continued from page 5

Railroads and Their Securities

revenue dollar carried through to net operating income before Federal income taxes. Last year the Class I carriers as a whole had a transportation ratio of 36.3%. Among the major carriers the individual ratios ran all the way from a low of 25.5% for Virginian to 44.2% for Chicago & North Western. Delaware, Lackawanna & Western; New York Central, and New York, New Haven & Hartford all had transportation ratios of over 42% and Pennsylvania was not far behind with 41.8%. Aside from Virginian there were six other roads with transportation ratios below 30%. Included in this group were Denver & Rio Grande Western; Gulf, Mobile & Ohio; Kansas City Southern; St. Louis Southwestern; Western Maryland, and Western Pacific. It takes little imagination to see that there is a vast difference in the status and prospects of a road that has to spend less than 30 cents out of every revenue dollar to handle the freight and one that has to spend more than 40 cents to accomplish the same end.

Similarly, the Class I carriers as a whole had a profit margin last year of 15.4%. The individual roads ranged from a high of 33.1% for Western Maryland to a low of 3.5% for Minneapolis, St. Paul and S. S. Marie. Others with profit margins of more than 25% last year included Denver & Rio Grande Western; Kansas City Southern; Norfolk & Western; St. Louis Southwestern and Virginian. Those close to the bottom of the list, all with profit margins of less than 10%, were Atlantic Coast Line; Boston & Maine; Chicago, Milwaukee, St. Paul & Pacific; Chicago & North Western; New York Central; New York, New Haven & Hartford, and Pennsylvania.

Of course, it is dangerous at any time to take one year's performance as a criterion of any company's operations. There may be special factors such as over-maintenance, strikes, floods or other particularly adverse weather conditions, etc. When a road is consistently near the top, or consistently near the bottom, however, it must be accepted as a true measure of that company's capabilities. That is why it is so important to follow these trends so closely in determining investment policy, rather than relying on a hit-or-miss program, or on tips. While there are exceptions, it is pertinent to note that for the most part the better performances have been turned in by roads in the south and west and the poorer performances in the east and New England.

Constructive Attitude Toward Rails Fully Justified

While I have said that railroads can not be judged as one single investment problem I am forced to generalize to some extent. To begin with, let me say that I am convinced that a constructive attitude toward the future of the roadroad industry is fully justified, although again stressing that selectivity is necessary in the choice of the particular media to be used if the investment program is to be successful. I will be satisfied if I can do nothing more this evening than convince you that there is nothing further from the truth than the opinion held in some quarters that the railroad industry is a decadent one capable of making profits only under extraordinary boom conditions. Actually, this is one of our most consistently profitable industries. The Class I railroads as a whole have never in history failed to show an operating profit—in fact, very few individual railroads have ever in any year reported an operating deficit. This is more than can be said for many other of our major industries such as steel, automobiles, etc., whose securities are held in high investment regard. In the poorest year in railroad history, 1938, the Class I railroads reported a net operating profit of $375 million.

One of the major troubles that plagued the industry in the past was the excessive debt and the burden of the heavy fixed charges incident thereto. In the old days improvements to the properties were traditionally financed through the sale of more or less permanent debt. Sinking funds were rare and when bonds matured they were generally just extended or refunded with more bonds. The theory was that adequately maintained properties retained their value and earning power in full and there was no thought of obsolescence. This entire philosophy has been completely reversed. Sinking funds to provide for retirement of bonds have become the rule of the I.C.C. now requires depreciation of certain roadway properties as well as equipment, in reorganizations there have been set up annual funds for property improvements that may not subsequently be capitalized, and the railroads themselves have voluntarily been reducing their long term debt.

In 1930 railroad debt hit its peak of roughly $13 billion. By 1947 it had been reduced to around $9.5 billion. It has increased somewhat in the past few years but this increase has been due to the sale of equipment obligations to finance dieselization and modern rolling stock. Such debt is on a serial basis and is self-liquidating out of depreciation accruals. It is more than justified from the standpoint of increased operating efficiency. Actually, the roads have continued to reduce their long term mortgage debt. All of this debt reduction has been going on in a period when the railroads have been making unprecedented expenditures for additions and betterments to the properties.

I would like also to stress the fact that this program of reducing the leverage in railroad capitalization has been going on when many other industries (the tobacco companies are good examples) have been building leverage into their capitalizations. The debt reduction, moreover, has been augmented by many lower coupon refunding operations so that charges have been going down at an even more rapid pace. Fixed charges are now down almost to $400 million annually compared with $700 million at outset of the 1932 depression and $659 million ten years ago. Of course some of this financial progress has been due to consummation of reorganizations of bankrupt railroads. This is not the whole answer, however, as many railroads that maintained their solvency through the 1930s have reduced their long term indebtedness by a third to well over 50%. Santa Fe, Deleware & Hudson, Great Northern, Illinois Central and Union Pacific, to name a few, have been outstanding in this respect.

There is no question but that the railroads today are in the best physical condition in their history. The Class I carriers since the end of World War II have made gross expenditures for Additions & Betterments to equipment and roadway property of over $10 billion. Over $1 billion a year has been spent in each of the past six years, and these expenditures have been superimposed on unusually liberal maintenance outlays. Reflecting these expenditures, the industry year after year has been setting new highs for operating efficiency. It is anticipated that the cumulative benefits from these property improvements will continue to accrue and that new standards of efficiency will again be established in 1954. Moreover, from all indications the heavy capital expenditures will continue in the current year, although the outlay may fall below the $1 billion of recent years.

Impact of Diesel Locomotives

You are all familiar with the diesel locomotive and what it has been able to accomplish in the way of expediting service and controlling expenses. The diesel has had a lot of publicity, and rightly so, because of the romantic associations of the steam locomotive that it has been replacing. Less glamourous, and thus less widely publicized, have been the many other factors that have contributed to the railroads' "New Look". There has been the large installation of centralized traffic control which gives nearly double track capacity to single track lines, with much lower original cost and less maintenance. There has been the trend toward heavier rail, with longer life expectancy, treated ties, improved ballasting, and other track improvements. The railroads have recently been going in extensively for radio communications not only in the yards, but, also, for end-to-end, train-to-train, and train-to-station communication. All of these developments are designed to improve and expedite service, and the speeding up of service is an important conserver of manhours.

The yards have been getting increasing attention from managements of many of the large carriers. I had the pleasure not too long ago of hearing the operating vice-president of the Southern Railway, Mr. Brosnan, give a talk on this subject before the New York Railroad Club. That road had made an exhaustive study of its yard situation and had come to the conclusion that there was considerable room for operating economies, and plenty of opportunity to expedite train service in this area. The initial major yard improvement involved an outlay of approximately $4.8 million. Figuring a 4% interest cost on the investment a cash saving of 52% annually is being realized. If credit is given for the cost of the diesel locomotives that were released for use on other parts of the system when the modernization was completed, the annual cash saving would come to a return of about 80% on the net investment in the project. A second yard modernization project that cost around $9 million is returning some 30% on the investment, and there is now in process a third operation involving the expenditure of $14 million. I cite this only as an example—many other roads have had the same experience and many are now going forward with similar projects. Aside from the cash savings there are the intangible, but substantial, benefits arising from the ability to give shippers better service.

Trend Toward Mechanization

Another phase of railroad operations that has not been given any great public recognition is the trend toward mechanization of maintenance. "Railway Age" a few months ago carried an article on the experiments made by one of the large western roads in their tie renewal practices. Small, highly mechanized gangs had been formed and with the new machines that had been designed during the experimental work it was found that the cost could be reduced to $1.40 a tie (exclusive of the cost of the tie), a saving of $1.00 a tie after allowing for depreciation of the new equipment. Man-hours per tie renewed were reduced by 39%. Another article in "Railway Age" discussed a newly developed hydraulic ram being used by one of the eastern roads that enabled five men lining track to do the same work that had formerly required 12 men. More and more, also, the railroads are installing automatic grade crossing protection and automatic interlocking as a means of offsetting the steady increase in wages. While the dollar amounts involved in these last two projects are small the percentage return on investment is substantial (perhaps 50%, or more, annually) at present wage levels.

As I mentioned before there is practically no one who does not recognize the benefits that have stemmed from dieselization because of the publicity there has been in the press and the fact that we all in our daily lives come in contact with this new motive power. There is a tendency to think that because so many roads have already largely, or completely, dieselized there are no new avenues open for further substantial cost savings. This is not so. There is still much to be done in better yard efficiency, in mechanization of maintenance, in improved signalling and communications, and in improved track structure. It is on the basis of these plans that I am confident that railroad operating efficiency has not even yet approached its peak.

A year ago we were looking forward to a new all time high in railroad earnings in 1953. That goal was not realized but the indicated net income of approximately $875 million was an excellent showing by any standards. Except for the $902 million net reported in 1942 it was the best showing since 1929 and compared with $824.5 million net income reported in 1952. It is my opinion that had the railroads cared to they could well have shown considerably higher earnings than those actually reported. There was little effort made to cut back on maintenance in the closing months when traffic was falling off. Obviously many railroads considered it advisable to continue their heavy work for a number of reasons. The weather was unusually mild in the fall and early winter so that it was feasible to keep road gangs at work. The railroads knew that they were faced with higher hourly wage costs so it was desirable to get as much work as possible done before the higher wages became effective. Finally, there was probably a psychological disinclination to lay off employees just before the holidays while earnings were still at such a high level.

The Intermediate Outlook

There are many reasons for advocating a constructive attitude toward rail stocks over the intermediate term. Most railroads have installed strict budgetary control systems so that the traditional lag between declining traffic and reduced expenses should be considerably shortened. While this was not generally apparent in the closing months, because of considerations mentioned before, it is indicated in many of the January reports that have appeared in the past week or so. Cumulative benefits from property improvements should continue to accrue in the current year, meaning a further improvement in operating efficiency. Price-earnings ratios are extremely low—three to five times for some sound railroad stocks. The yields are most liberal on a generally modest payout of reported earnings. Thus, even with lower earnings indicated for the current year dividend payments in the aggregate should be higher in 1954 than in 1953. This has already been indicated in some instances such as Denver & Rio Grande Western and Southern. Finally, when it is demonstrated, as it will be in early future months, that earnings of the better situated roads can be maintained in the face of declining traffic, there should develop a resurgence of confidence in the industry that will bring with it a far more realistic market appraisal of current earnings.

A Look at Some Individual Rails

I have stressed the importance of selectivity—obviously my optimistic comments on the intermediate term outlook do not mean that I feel that indiscriminate buying of rail equities is warranted at this, or any other, time. I do not feel that New York Central and Pennsylvania, while they have spent heavily on property improvements and new equipment in recent years, and even though they have made some progress, have reached the point where they can maintain significant earning power during a recession. Railroads such as North Western and St. Paul in the west apparently face a rather grim year—traffic will be down and certainly they cannot hope for any more favorable winter and spring weather conditions than they had last year. Great Northern, while fundamentally a truly sound railroad property and with long term growth potentialities in the Pacific Northwest area, also can not hope for better weather conditions than in 1953 and will probably be hit by a fairly substantial drop in iron ore traffic.

On the other side of the picture, Southern should do considerably better than average on the basis of the strong growth characteristics of the service area and the highly favorable trend of operating cost ratios. Also, from a market angle it will become increasingly more obvious that the 1956 bond maturities no longer present any problem. Illinois Central, which has recently announced a two-for-one split of its common, is another highly favorable situation. Except for those roads that underwent judicial reorganization Illinois Central has done a better debt job than any other railroad in the country. Its earnings are high, a dividend increase seems to be in the cards some time this year, and its traffic picture is bolstered by growth in parts of its territory, and its exceptional record with respect to expanding coal tonnage. Santa Fe, of course is always tops. It is one of the few roads than in all its history has never failed to report earnings available after fixed and contingent charges. Its capitalization is one of the most conservative in the country, its finances are strong and the 1954 traffic picture, compared with last year, should be good because of the 1953 drought in the wheat states served. A yield spread of from 3.10% on the road's long term bonds and 7% on the stock is manifestly absurd. While I consider these three as representing the best value in their respective classes at the present time there are many other railroad stocks that today offer excellent investment opportunities. Among these might be mentioned Denver & Rio Grande Western; Gulf, Mobile & Ohio; Kansas City Southern; Louisville & Nashville, and Seaboard Air Line. All of these serve growth territories and have developed a high degree of operating efficiency, both of which would be calculated to afford a strong cushion during a period of declining business. For the most part, also, these roads are characterized by conservative capital structures.

In the speculative category, Baltimore & Ohio stands out. Its performance both with respect to traffic trends and operating results is markedly superior to that of either New York Central or Pennsylvania. It is much further along in point of property and equipment improvement. It has high earning power — something over $10 a share last year. The high earnings are not available at the present time for distribution to stockholders because of the heavy sinking fund requirements

set up in the voluntary debt readjustment plan of a few years ago. This debt retirement program, and the property rehabilitation program, however, are consistently improving the fundamental investment stature of the company and the prospects of the equity holders. It is indicated that not too far in the future the compulsory debt retirement will have progressed to a point where a considerably larger share of the reported earnings will be available for distribution to the equity holders. Meanwhile, the road has at least some measure of growth characteristics centering around the import movement of ores through the Port of Baltimore and the development of newly exploited high grade coal deposits adjacent to the company's lines in West Virginia.

Newburger Pres. of Phila.-Balt. S. E.

PHILADELPHIA, Pa.—The Philadelphia-Baltimore Stock Exchange elected Frank L. Newburger, Jr., senior partner of Newburger & Co., investment brokers, as President; and re-elected nine directors to the Board of Governors.

F. L. Newburger, Jr.

The election of Mr. Newburger marks the first time in the 164-year history of the Exchange that a son of a former Exchange President has been elected to that position. His father, the late Frank L. Newburger, Sr., was President from 1930 through 1934.

Mr. Newburger has been a member of the Board of Governors since 1945 and served as Vice-President last year. He joined the firm of Newburger, Henderson & Loeb in 1929, after attending Cornell University, and became a partner when the original brokerage firm was succeeded by Newburger, Loeb & Co. He later founded the firm of Newburger & Co., which has offices in Philadelphia, New York, Atlantic City and Vineland, N. J., and Lebanon, Pa.

During the war Mr. Newburger served in the China-Burma-India theater and later in the office of the Surgeon General. He was discharged with the rank of Major. He is a member of the Bond and Cornell Clubs of Philadelphia.

Mr. Newburger has taken the helm of the Philadelphia-Baltimore Stock Exchange as it prepares to serve the ever-expanding industrial growth of Delaware Valley, U. S. A., now having the greatest boom period in its history.

The Philadelphia-Baltimore Stock Exchange governors reelected are: George W. Elkins, Jr., Elkins, Morris & Co.; Herbert T. Greenwood, H. T. Greenwood & Co.; Robert Y. Guarniery, R. Y. Guarniery & Co.; J. Raymond Leek, Bioren & Co.; Harry MacDonald, E. W. Clark & Co.; Samuel K. Phillips, S. K. Phillips & Co.; George E. Snyder, Jr., Geo. E. Snyder & Co.; Edward Starr, Jr., Drexel & Co.; William DeHaven Townsend, DeHaven & Townsend, Crouter & Bodine.

S. F. Exchange Member

SAN FRANCISCO, Calif. — Ronald E. Kaehler, President of the San Francisco Stock Exchange, announces the election of John D. Baker, Jr., to membership in the Exchange. Mr. Baker, a general partner of Reynolds & Co., acquired by transfer the membership formerly held by the late James M. Davies of that firm.

Railroad Securities

Last week we discussed the I. C. C. examiners' proposed reorganization plan for the Missouri Pacific System in general terms, pointing out that it contemplated a substantial increase in the capitalization compared with the previous Commission plan, and, in fact, an increase in the overall debt above that now outstanding. In greater detail, we are giving below the actual proposed capitalization and the charges applicable thereto.

	To be Outstanding	Annual Charges
Equipment Obligations	\$67,588,751*	\$2,024,000
First Mortgage 20-Year "A" 4¼s	40,615,900	1,726,176
First Mortgage 35-Year "B" 4¼s	132,080,170	5,613,407
First Mortgage 50-Year "C" 4¼s	134,893,009	5,732,953
Total fixed interest debt	\$375,177,830	\$15,096,536
Contingent Requirements—		
Capital Expenditure Fund		†
First Mortgage Sinking Fund (¼ of 1%)		768,973
Series "A" 65-Year 4¾% Income Bonds	64,171,205	3,048,132
Series "A" Income Bond Sinking Fund (½ of 1%)		320,856
Series "B" 75-Year 4¾% Income Bonds	74,785,417	3,552,307
Series "B" Income Sinking Fund (½ of 1%)		373,927
Total fixed and contingent debt	\$514,134,452	\$23,160,731
Stocks—		
5% Preferred (\$100 par)	93,805,509	4,690,275
No-par Common (taken at \$100 a share)	201,824,761	
Total stock	\$295,630,270	\$4,690,275
Total capitalization and charges	\$809,764,722	\$27,851,006

*Actually outstanding as of 12/31/52—probably higher now.

†For the first four years from the effective date of the plan (1955-1958) capital fund is \$11 million annually, less depreciation of way and structures. The 1953 charge would have been roundly \$7,000,000. After 1958 the fund will be 2½% of gross, less depreciation of way and structures. In 1953 this would have come to roundly \$4,000,000.

Last year the three Missouri Pacific System companies reported income available for fixed charges before Federal income taxes of \$38,792,604. Because of tax benefits from accelerated amortization, and also reflecting tax credits applicable to adjustments for prior years, the companies combined accrued only about \$307,000 in 1953 for Federal income taxes.

The following tabulation outlines the manner in which the proposed new securities would be allocated to the major classes of old claims and equity holders. In this tabulation we have omitted the old Missouri Pacific common as holders of that stock get only a remotely contingent participation through warrants.

International-Great Northern Adjustment claims to the extent not filled out in the table below would get similar warrants.

		First Mortgage 4¼s			Income 4¾s			
		20-yr.	35-yr.	50-yr.	65-yr.	75-yr.		
	Cash	A	B	C	A	B	\$5 Pfd.	Common
MOP Ref. 5s	\$301*		\$500	\$500				
Gen. 4s, 1975	None				\$800	\$1,073		
Conv. 5½s, 1949	None				200	200	\$1,819	
Serial 5¼s	None			300	1,000	859		3.42 Shs.
\$5 Preferred	None							2.645 Shs.
NOT & M 1st Mtge.	†	\$1,000‡						
I-GN 1st 6s	120		700	690				
1st 5s	100		680	645				
Adj. 6s	None				200	220	800	8.92 Shs.

*Average for all series—amounts on individual series vary slightly.

†Interest to consummation at present rates.

‡New First Mortgage bonds or collateral issue with interest rate sufficient so that they will sell at par.

All of the back interest accrued on the Missouri Pacific First & Refunding 5s to Dec. 31, 1954 would be paid in cash. International-Great Northern First Mortgage bonds would get two years' interest in cash, and the New Orleans, Texas & Mexico bondholders would continue to get interest at the prescribed rate. All in all, the plan contemplates distribution in this manner of \$70.2 million in cash. As of the end of 1953 the three System companies had an indicated \$84.5 million of cash resources, including some \$20 million of capital reserve funds not carried in current assets. Presumably cash reserves will be bolstered by earnings in the current year but even at that the proposed \$70.2 million distribution appears high in relation to available cash reserves.

Fixed charges under the plan are indicated at \$15,096,536 and total fixed and contingent charges, including the Capital Fund, would amount to \$30,160,421. They might be somewhat higher if equipment debt is above the Dec. 31, 1952 level, as seems likely. The fixed charges as given would have been covered 2.57 times, before Federal income taxes, by last year's available income and the total fixed and contingent charges would have been earned only 1.29 times. Even granting that maintenance outlays were unusually generous in 1953, the showing is not impressive. Obviously it would be expected that most, if not all, of the proposed new bonds would trade at discounts running, in the case of the Incomes, to substantial amounts.

On the basis of last year's earnings, and allowing only for the nominal Federal income tax actually accrued, earnings available for the 5% preferred would amount to only \$8.88 a share, with a very modest \$1.80 a share available for the common. In view of this indicated earning power for the new common, and considering that consummation of any reorganization plan appears still to be at least two years away, many rail analysts have been amazed at the recent spurt in quotations for the old preferred.

Bank and Insurance Stocks

By H. E. JOHNSON

This Week — Bank Stocks

The market action of bank shares over the past several months has been disappointing.

Despite record earnings reported for 1953 and larger cash and stock dividends, the shares of many of the leading banks have shown little, if any improvement. Indeed, most of the shares of the larger New York banks have declined in the face of a steadily rising stock market.

The "American Banker" index of New York City bank stock prices reached a high of 58.0 on Nov. 27, 1953. This was the same level as it touched on two previous occasions during last year—Jan. 13 and Feb. 4. In between January and November the index touched a low 51 on June 19. Since the end of November prices have declined and the index on March 4, 1954 stood at 54.5 as compared with 55.6 on Dec. 31, 1953 and 57.1 at the end of 1952.

During the same interval the Dow-Jones index of 30 industrials has been moving upward. The high for this index last year was reached on Jan. 5, 1953 when it was 293.79. A readjustment carried the index down to a low of 255.49 on Sept. 14. Since that time the rally has carried it upward to a high of 297.48 reached on March 2 of this week. On Dec. 31, 1953 the industrial index was 280.90 as against 291.90 at the end of 1952.

The decline for the Dow-Jones industrial index from Dec. 31, 1952 to Dec. 31, 1953 was thus 11.00 points as compared with 1.50 points in the American Banker index of bank stocks. Since the end of the 1953 year, however, the industrial index has gained 16.58 points as against a decline of 1.10 points in the index of New York bank stocks.

Thus the major difference in the movement of prices between the two groups over the past 14 months has occurred in the current year.

A tabulation showing prices of 17 major New York bank stocks and five major institutions outside of New York at various dates is presented below. All prices have been adjusted for stock dividends and splits to put quotations on a comparable basis.

	Current Market	Bid Price 1953	Dec. 31, 1952	1953 - 1954 Price Range
Bank of Manhattan	34¾	38¾	35	40 — 31
Bank of New York	376	379	379	396 —351
Bankers Trust	48¾	52½	53	55½— 47¾
Chase National	43¾	45½	48½	49¾— 42¼
Chemical Bank	45¾	48	49¾	53¼— 43¾
Corn Exchange	61¼	61¾	65¾	67¼— 58
Empire Trust	125	121	140	156 —119
First National	387	380	394	418 —366
Guaranty Trust	63¾	65¼	72¼	72½— 61
Hanover Bank	87	89⅛	88	92 — 80
Irving Trust	23¾	23	23¾	24⅛— 20⅝
Manufacturers Trust	65¼	62½	64½	66¼— 58¼
Morgan, J. P.	261	259	283	302 —251
National City	50⅜	52	51⅜	55⅛— 46½
New York Trust	110	113½	117	116½—100½
Public National	42	42⅜	40¾	42⅜— 37
U. S. Trust	281	281	269	292 —257
Bank of America	33⅛	34¾	30⅞	35 — 28½
First National—Boston	49⅞	49½	43¼	52 — 40¼
First National—Chicago	265	262	250	273 —226
Continental Ill. National	87	86½	93	94½— 81
Security First Nat'l (L. A.)	50	48	41	50 — 39¼

Part of the reason for the disappointing action of bank shares has undoubtedly been the trend of interest rates and the apprehension about its influence on earnings. Also, there has been some concern about what affect a cut in the prime loaning rate might have on bank shares as well as the liquidation of loans that has taken place.

Just what impact the lower level of interest rates may have on operations will have to await the quarterly reports as the year progresses.

So far as the quarterly reports for the first period are concerned, there is little likelihood to be any decline in operating results. In fact, it may be that operating results, will show a gain over the first quarter of 1953. Security profits because of rising bond prices are almost surely to show a large gain.

In succeeding periods operating results are likely to be determined by the trend of business loans and investment holdings as well as significant changes in the level of interest rates. In the initial periods we look for a well maintained level of earnings. If so bank shares should show more stability.

Shurtleff, Breley, Kops With Hayden, Stone


Lynn Shurtleff Pierre R. Bretey

Lynn Shurtleff, Pierre R. Bretey and August W. Kops have joined the securities firm of Hayden, Stone & Co., 25 Broad Street, New York City, it has been announced.

Mr. Shurtleff will be Manager of the firm's Research Department. He holds an engineering degree from Massachusetts Institute of Technology. He was previously associated with the Guaranty Trust Company and Laird, Bissell & Meeds and is a member of the investment management group of Institutional Shares, Limited.

Mr. Bretey has been a railroad specialist for many years and joins Hayden, Stone & Co. in that capacity. He was previously with Baker, Weeks & Co. and is a past President of both the New York Society of Security Analysts and the National Federation of Financial Analysts Societies.

Mr. Kops joins the firm's Commodity Department. He was formerly a Vice-President of the Rayon Corporation of America and President of the Textile Salesmen's Association of America. Prior to World War II he was associated with E. F. Hutton & Co., where he specialized in Japanese silk contracts.

At the same time it was announced that David B. MacNeil will take over management of the Corporate Department. Mr. MacNeil has been with the firm for many years as head of the Research Department.

Other changes include: Peter G. Wyckoff, formerly with Investors Advisory Institute, a subsidiary of "Forbes Magazine," who joined the Research Department, and Harry C. Howell, Henry Leach, Henry N. Kohl and Arthur J. Fitzgerald, who are new additions in the Retail Sales Department.

Our Reporter on Governments

By JOHN T. CHIPPENDALE, JR.

Economic conditions are really being hawk-eyed by followers of the money markets because it is believed that the trend of business in the next few weeks will give clues as to whether or not there will be further ease in the interest rates. There appears to be very little question among money market specialists but what a further deterioration in the business picture will bring with it a much easier credit policy. Lower reserve requirements, a reclassification of reserve requirements in New York and Chicago, a further lowering of the rediscount rate, and enlarged open market operations are some of the things that could be done to make more credit available.

The entire government list has been doing a good job of it from the shortest to the longest maturities. It is, however, the 3¼s of 1978/83 that have been really glamorized as they make all-time highs and move on towards the 110 level which was considered fantastic not so long ago.

Doubt Long-Term New Money Issue

The government market seems to be indicating that there is less likelihood of a long-term bond being offered for new money in the near future. The tone of the longer-end of the list shows that these securities are still moving into strong hands with "scarcity pockets" being uncovered here and there in certain issues. The buying which is being done in the longer-term 2½% bonds is showing an expanding tendency with the institutional demand getting more aggressive as price continues to move up.

The 2½% bonds in the most distant maturities are now the important issues and the ones in which most of the business is being done even though yield is not as good as can be obtained in the 3¼s due 6/15/78-83. However, when the yield after taxes is considered, the shorter maturity and the fact that the 2½% obligations are still available at a discount, there is much that is desirable in the longer-term 2½% bonds.

Banks "Out of the Words"

The way in which the government market as a whole has come back after the sinking spell of last year is little short of sensational. However, the longer-term 2½% bonds have really been the star performers because from the sickening levels of 89¾ they have now reached prices where only a very modest increase in quotations will take them back to 100 again. There is no denying but what there is a much more comfortable feeling around now among the holders of the 2½% bonds, especially the smaller commercial banks, with quotations again crowding the par level.

While there was a considerable amount of dollar averaging done by the banks in the 2½% bonds, it was not enough, according to reports, to offset the losses that they might have faced if prices did not have such a substantial recovery. However, because of the purchases that were made when quotations were lower, most of the deposit banks that own the long 2½s are now pretty well out of the woods.

Scarcity Value on 3¼s

The 3¼% due 6/15/78-83 has been putting on a show pretty much by itself. The bond is now known as a "museum piece" and while it still gives the best yield of any government issue, it is rapidly becoming a more or less scarcity item. However, it is reported from time to time there are some rather sizable trades in this issue because there is the ever present desire to take profits and put the funds into other securities that have greater attraction than the high premium 3¼s. A goodly portion of the money which has come out of the longest government bond, according to reports, has been put to work in tax exempt securities.

New 2½s in Demand

The recently issued 2½% due 1961 has also been a star performer, with commercial banks also the most important buyers as far as this bond is concerned. There has been a tendency on the part of those that are not concerned about taxes to take profits in the 1961 maturity and to put the proceeds into selected corporate bonds, preferred and common stocks. The fact that some are willing to take profits in this intermediate term bond has helped to give this issue a good two-way market because there are plenty of buyers around for this obligation.

Trading Positions Light

Trading positions are reportedly on the light side in most of the higher yielding Treasury obligations because practically all of these securities are going out of the market as fast as they come in for sale. Funds are available for the purchase of government bonds, and despite the belief that either an intermediate or long-term bond could be used for the new-money needs of the Treasury, there is not a great amount of hesitation on the part of those that have money to put it right to work. Easy money conditions, they feel, will continue to bring about lower interest rates, so why wait.

Continued from page 18

Television's Role in Education

course and took the same final examination as the students who pursued the course in the classroom on the campus. To the surprise of many people, the home viewers as a group performed better in the examination than the campus students.

Scarcely a private university or college in the nation has the assured endowment income sufficient to meet the cost of operating the institution without supplementary gifts. No one can guarantee that they will receive those gifts. Yet, most have a hardy existence, and operations continue. They grow and develop. There is no doubt in my mind about financing operations of educational television if the station does a good job.

Doing a good job, however, in my opinion, requires more than just standing a professor in front of a television camera and presenting material of quality content. Programs also must have features of entertainment and showmanship if we expect to hold our viewing audience. Very few of the general public are eagerly striving to be educated. Learning is a self process requiring personal effort on the part of the participant. Consequently we have the difficult assignment of presenting quality programs with sufficient appeal to retain a large and appreciative audience. This will not be easy, but our reward will be the gratitude of the many people who will benefit from the new treasures placed within their reach by educational television.

Basic Reasons for Educational TV

We educators are interested in television for two basic reasons. We stand to gain a great, new teaching tool, and we will have an additional means to raise the educational level of our communities and thus serve the future of all people and the nation.

We believe that it can be most effective in the stimulation of educational interest and activity on the part of thousands of citizens. It can give many of them a desire for more education and a greater respect for learning.

The purpose of education is to enrich the lives of the people. Since television has the potentialities to raise the intellectual level of all people, it is natural that educators should want to lend their energies and backgrounds so that it can be developed soon.

Our future growth as a nation is greatly dependent upon the increasing enlightenment of the people. So rapid has been the advance of our technology that need for a means by which we can both speed and broaden the basic education of youth is vitally necessary. Beyond that, there is need for a better means to continue the education of all citizens after completion of their formal schooling. Television's role in this can be far-reaching.

We know that only about half of all the American high school graduates who are eligible can afford to go to college. And yet, a higher education has become almost a prerequisite for full participation in our national life.

It is certain that when all the proposed educational television stations are in operation, most of the nation's educational and cultural institutions will be able to extend their value beyond their walls to millions of citizens whom they cannot serve now.

Finally, I should say that we don't expect the establishment of Channel 11 to go off like clockwork. As in the case of every new development, progress will be made slowly in some areas. The ever-present difficulties will be surmounted only through the cooperative efforts of those devoted to this worthy undertaking. We must acquire new experience in the use of this greatest of all media of mass communication. we are confident, however, that the results will be worthwhile, that through educational television the lives of untold numbers will be enriched and attain new heights of satisfaction and usefulness.

$50,000,000 Ontario Bonds Marketed

Harriman Ripley & Co. Incorporated and Wood, Gundy & Co., Inc., jointly head a group which is offering $50,000,000 Province of Ontario (Canada) Debentures consisting of $20,000,000 of Debentures maturing $4,000,000 annually March 15, 1960 through 1964 bearing interest rates of 2.60%, 2.65%, 2.70%, 2.75% and 2.80%, respectively and $30,000,000 of Debentures maturing March 15, 1980, bearing interest at the rate of 3⅛%. The Debentures are priced at 100% for the maturities 1960 through 1964 and at 99¾% for the 1980 maturity.

Proceeds of the offering will be advanced by the Province to The Hydro-Electric Power Commission of Ontario. The Commission will add the moneys to its cash resources, which will be utilized among other things, for capital expenditures in connection with its present capital construction program, to repay temporary loans of the Commission outstanding at the time of the advance, and to repay bonds of the Commission maturing March 31, 1954 in the principal amount of $5,000,000.

The Debentures will be direct obligations of the Province of Ontario and principal and interest will be payable in lawful money of the United States. Debentures maturing 1960 through 1964 are redeemable at any time on and after March 15, 1959 at the principal amount and accrued interest, plus a premium of ¼ of 1% for each period of 12 months, or fraction thereof, between the redemption date and the respective maturity date of the Debentures to be redeemed. The Debentures maturing 1980 are redeemable at any time on and after March 15, 1959 at 100% and accrued interest plus a premium ranging from 3% for Debentures redeemed on or before March 15, 1961 to ½ of 1% for those redeemed after March 15, 1973 and on or before March 15, 1976 and at no premium for those redeemed thereafter.

Ontario is the second largest in area of the Canadian provinces, covering approximately 412,000 square miles, of which about 88% is land area. Estimated population of the province on June 1, 1953 was 4,897,000, representing 33.1% of the total population of Canada. Net direct debt of the province on Jan. 31, 1954 was $626,220,227.

Other members of the offering group include—The First Boston Corporation; Smith, Barney & Co.; The Dominion Securities Corporation; A. E. Ames & Co. Incorporated; and McLeod, Young, Weir, Incorporated.

N. F. S. Russell

N. F. S. Russell, member of the New York Stock Exchange, passed away on Feb. 24.

Continued from page 15

Where Is the Helicopter Heading?

helicopters as larger equipment becomes available.

Helicopters are in wide use both here and abroad for agricultural purposes such as crop dusting and spraying, and frost relief. The major oil companies are using helicopters extensively for geophysical exploration and supply in swamps, mountainous terrain, and off-shore oil fields. Several of the vital power, mineral and industrial projects in Canada use helicopters as the basic medium of transport. The New York police have operated a fleet of helicopters for several years, using them for jobs ranging from aerial control of traffic bottlenecks to the rescue of bathers at Coney Island and the removal of injured stepplejacks from dangerous perches.

Practically all of the helicopter work today has been performed with relatively small machines, the largest until recently being capable of carrying only eight people. The most important new development on the helicopter scene, and one that offers both a wide extension of present helicopter operations as well as a new area of helicopter usage, is the advent of the large transport helicopter. Such machines as our 20-passenger H-21, which has been in production for the past two years; and our H-16, the first of a series of 44-passenger and even larger helicopters. The advent of these large machines is as significant to helicopter usage as was the introduction of the DC-3 to commercial aviation and the Flying Fortress to military aviation. The ability to carry large loads is the feature which takes a vehicle out of limited areas of application and into the potential of even wider usage.

Future Potential

The new emphasis on helicopters, the recent advent of large transport helicopters, the pace of technical developments, and intensified production will bring new and extended applications for the rotary-winged craft.

(a) **Military:** (1) Foremost among the important new military roles is **vertical envelopment.** Vertical envelopment by helicopter for the first time **makes true airborne Armies a reality.** By landing integrated units of troops on predetermined spots, vertical envelopment eliminates the need for large concentrations of ships close off-shore. It permits forces to land on defensible spots, and by passes the need for landing on defended beachheads with the tremendous losses which characterized such operations in World War II. Vertical envelopment permits landing of forces in organized fashion rather than on a scattered area basis as is necessary with paratroops and gliders. Furthermore, it provides an immediate two-way transportation system for the evacuation of wounded and the maintenance of supply lines. Aside from its immediate tactical value, the mobility of vertical envelopment is an extremely vital addition to our punch in an era in which it is impossible to have enough forces at every potential danger spot at all times.

(2) Our Armies are also developing and procuring helicopters in substantial numbers for logistical work, using the helicopter as an aerial truck. The greater speed of the helicopter gives current machines greater ton mile capacities than even the biggest trucks. This increased capacity and mobility are of tremendous importance in this era of defense on a world-wide basis where sufficient quantities of manpower and equipment are critical. This vastly increased mobility shortens supply pipe lines and permits lesser forces to cover greater areas.

(3) In Naval warfare, the helicopter will be a basic vehicle in combating the submarine threat. Its ability to fly low and slow and to hover makes it capable of searching for submarines without exposing itself to their torpedoes. Its ability to take off and land in small areas makes it operable from even cargo vessels.

(4) One of the most vital military roles of the helicopter—and this one vital to us civilians as well—is its place in atomic warfare. The helicopter is the only vehicle that can have access to contaminated areas without actually rolling or landing and becoming contaminated itself. It is the only vehicle which can have access to damaged areas without the need of roads or airports. In fact, helicopters have been used for this very purpose in all of the atomic bomb tests of the past four years.

(B) **Commercial:** An appraisal of the growing military use of the helicopter is only one part of the picture. We also must consider the commercial future of the transport helicopter. Helicopters will be used to provide rapid short haul transport both within metropolitan areas and in city-to-city service. When one takes into account the transfer time required between downtown and airport at both ends of the flight and the time that the airplane spends in take-off and landing procedures, an analysis of comparative city-to-city center speeds shows that even today's comparatively slow helicopter can beat the airplane up to about 150 miles. Higher speed helicopers under development today can beat 300 mile an hour airplanes up to about 300 mile stage lengths.

Moreover, helicopter service can be provided without the tremendous capital investment necessary for the construction of airports. Many communities do not—and in fact cannot—have airplane service because they lack either the space or the capital required for an airport capable of handling today's high speed airplanes. The helicopter can make air service available to even the small communities.

The advent of large helicopters capable of flying at higher speeds has brought widespread helicopter transportation quite close to reality. Our company has had a 20-passenger helicopter in production for almost two years, and is now flying the first of a series of 44-passenger and larger helicopters. To date, helicopters have been required to fill urgent military needs. But their approaching availability to commercial operators opens a vast new medium of modern transportation. When Captain Eddie Rickenbacker, Chairman of Eastern Airlines, visited our plant recently, he said, "Every city in the country interested in its future commercial development should plan early development of suitable heliports, not only to transport people between the center of populated areas and outlying airports but also for local inter-city travel." Captain Eddie said that Eastern Airlines plans to spend $50,000,000 on helicopters of capacity of 25-50 passengers. He predicted that all routes of 300 miles or less, such as New York to Boston, Philadelphia to Washington, and New York to Washington, will be served effectively by helicopters.

We have had similar indications of tangible interest from other airline heads.

The proof of the pudding that the helicopter is the short-haul airliner of the future is convincingly contained in the fact that no short haul fixed-wing airplanes are even under development, let alone in production, in the United States today.

Technical Trends in the Helicopter Field

Dynamic technical advances continue to take place in the helicopter field. These advances are in three major areas:

(1) Size and capacity

(2) Speed

(3) Development of helicopter uses.

The size and capacity of helicopters show no inherent technical limit. Larger and larger machines, capable of lifting heavier and heavier loads, can and will be built as the basic workings of commercial economics and military planning dictate. Even today we can foresee the design of helicopters over 200,000 lbs. in weight.

Increased speed of vertical lift aircraft will broaden the machines' areas of application. Speed increases can be achieved in three main ways:

(A) Improve the characteristics of the helicopter rotor by the incoporation of such features as boundary layer control of the air flow over the rotors to delay their stall at high speed, and addition of devices to automatically control the motions of the rotor blades at high speed, as well as other features to permit rotors to travel through the air at higher velocities. In addition, the higher speeds will then make retractable landing gears and streamlining advantageous. This type of machine probably can be developed up to speeds of 180 miles an hour.

(B) In order to further increase speeds the rotor must be unloaded, which can be done by adding a wing to carry the load at high speeds. To further reduce the load demanded of the rotor at high speeds a propeller can be added, control of the aircraft being achieved with conventional airplane surface controls (ailerons, elevators, and rudder). The rotor then is in an idling condition at high speeds with very little lift on it. This combination vehicle we call the compound helicopter. It may reach speeds of 250 to 300 miles an hour.

(C) For even higher speeds, an entirely different type of machine will be required. This is commonly called the convertiplane. Many different designs for convertiplanes have been proposed. In some of these the rotors can be inclined forward to act as propellers for high speed flight. Another design approach is to retract the rotor as the aircraft accelerates to higher speeds, thus reducing the drag of the machine and by-passing the problems of having the rotor exposed in high speed flight. This type could be designed for supersonic speeds. There are almost an infinite number of proposed designs for convertiplanes — in fact, many more designs than competent inventors.

Selecting one of the above three ways to increase helicopter speed depends on the requirements of the aircraft application. Obviously for certain military tactical missions, the highest speed, regardless of economics, is the most desirable. For long range operations the decreased trip time — such as time to rescue point—looks very attractive but not necessarily more attractive than the weight carrying abilities; and so a compromise speed may be chosen. For short ranges, increased speeds may not result in much time saving, especially when compared to other means of transport; but the weight carrying efficiency is paramount. Therefore, the choice of the method of increasing speed must be made with a careful evaluation of the end use of the aircraft, achieving an economic balance between speed, weight carrying ability, and complexity of the design.

There is no question that compound helicopters and convertiplanes fully capable of both helicopter flight as we know it today and high speed flight as fast as today's airplane speeds, are technically feasible. The economics of these combination vehicles, however, are the big question at the moment. It is possible that the penalties of weight and complexity in either the airplane or helicopter flight regimes, or both, will limit their use. On the other hand, it is quite possible that the price of the combination will be outweighed by savings in high speed landing devices presently required and by reductions in the tremendous capital investment necessary for airports. This cost remains to be determined in the future.

Equipment (both ground and helicopter-borne) and techniques are being developed to permit the widest and most effective use of the helicopter's unique flight characteristics. Automatic flight systems are being perfected to permit helicopters to operate in all forms of weather, even in obstructed areas such as the hearts of cities. Mufflers for both piston engines and gas turbines are being tested for the silencing of passenger transport helicopters. Special flight instruments, more precise radio navigation devices, and specialized military equipment are being conceived and developed to extend the helicopter's usefulness.

Impact of the Helicopter on Society and Economy

The helicopter has developed in era which gives it unique timeliness for commercial transportation. Its capabilities are essential to American urban trends and problems and are synchronized with the decentralization and extension of large metropolitan areas. Metropolitan areas have generally been defined as regions embracing a travel radius of one hour's time. Clearly, such areas as our own have reached that time boundary with existing forms of transportation. The helicopter will extend this radius many miles and therefore extend the social and economic boundaries of metropolitan areas by many miles, while still permitting the same rapid transit time.

Similarly, there is a growing trend toward the decentralization of industry, for economic reasons, for defense purposes, and because of lack of space for new plant sites in cities. The helicopter provides a ready means of tying such plants, supporting suppliers, and their customers together with direct source-to-destination transport.

Despite the great public works projects that have brought us new highways, wider streets, and have relieved some traffic bottlenecks, we appear to be losing ground rather than gaining in the relief of surface congestion and bottlenecks. In keeping with this historical trend of seeking new levels for the expansion of transit in order to bypass the saturation of existing levels, the helicopter opens up the one remaining new level—the air. It is a further step in increased transportation capacity by new strata such as the elevated railways, subways, and overhead highways.

In addition to its advantages of speed and freedom from congestion, the helicopter can change the very economic and social structures of metropolitan areas in that lines of transportation will be supplemented by areas of transportation. Our transit facilities today consist of a series of lines, fixed by the pattern of railroads, streets, and highways, and rigidly confined by the industrial and residential structures which surround them. Travel away from these main lines and between the areas served by them is slow and less convenient. The helicopter, not being restricted to the pattern established by these fixed lines, will supplement our lines of transportation with a vital new flexibility in the form of areas of transportation.

All of this can be achieved at a capital investment lower than that inherent to any other form of transportation. For, unlike the railroad with its tracks and right-away, the automobile with its highways, the steamship with its harbors and docks, and the airplane with its airports, the helicopter requires less supporting facilities than any other vehicle. We therefore can expect its development to be rapid.

The capabilities of the transport helicopter will have a profound impact on our transportation network, our city planning, architectural design, and location of industry and residential areas. I do not mean that it will seriously reduce the role of existing forms of transport; rather, it will supplement them, tie them together, and provide an integrated network to increase the speed and convenience of the entire transportation system.

Its impact on architectural design will be basic. Already there is growing interest in, and attention to, the inclusion of helicopter landing spots in the design of new factories, hotels, office buildings and similar centers of transportation flow. Just as putting America on the wheels of the motor vehicle has clearly changed our patterns of living, so the rotor blades of the helicopter will permit other expansions and efficiencies in our way of life.

There are no technical barriers to the progress of vertical lift aircraft in sight. With the breadth of vision that characterizes Aviation's Golden Age, with the healthy technological atmosphere that has seen the so-called barriers of low and high speed flight broken, with proper planning and public support, the helicopter's progress and usefulness are unlimited. The best is yet ahead!

Robt. Matthews With Scherck, Richter Co.

ST. LOUIS, Mo. — Scherck, Richter Company, 320 North Fourth Street, announce that Robert H. Matthews became associated with them as of March 1. Mr. Matthews has had long experience in the origination, underwriting and private placement of corporate securities. He has specialized, to a considerable extent, in the securities of companies located in the Southwest where he has wide acquaintance. His analyses of certain individual securities and his "Build Yourself a Fortune," a comprehensive treatise on the investment characteristics of life insurance stocks, have received nationwide acclaim from investment dealers.

Robert H. Matthews

Mr. Matthews, a native of Green Bay, Wisconsin, saw military service in France as an airplane pilot in World War I. He has been in the investment business since early 1917 and was a partner of G. H. Walker & Co. and of Reinholdt & Gardner, both of St. Louis. For the past year, he was associated with Dempsey, Tegeler & Co. of St. Louis. He will continue his activities in fields in which he has specialized.

Continued from page 11

Current Recession More Serious Than Inventory Trimming

cotton, corn, and other farms have added to this surplus inventory till it amounts to between $6 and $7 billion and is now rising at an accelerated rate. The President stated this matter well in his farm message to Congress on Jan. 11, 1954:

"Present laws discourage increased consumption of wheat, corn, cotton, and vegetable oils and encourage their excessive production. The huge and growing surpluses held by the Government act as a constant threat to normal markets for these products. . . . Because such tremendous supplies are already in hand, acreage allotment and marketing quotas have had to be applied to wheat and cotton. An appeal to the Government for sharp acreage reductions for corn appears unavoidable. . . . Therefore, we must move without further delay to treat the fundamental causes of our present excess supplies of farm commodities."

This rather acute inventory symptom seems to me to indicate a considerable supply-and-demand maladjustment, and there is no prospect that this excess inventory will be liquidated by the autumn of this year — or next year.

In the industrial field, steel presents an interesting case bearing on the problem of whether we now face merely slight inventory adjustments or a basic capacity, employment, and purchasing power issue. At the strong prodding of Government and with some special inducements, the steel industry built up from about 100 million tons of annual ingot capacity at the time of the Korean outbreak to a little over 124 million tons now. This presents no inventory problem because foresighted steel company management cut production well in step with abating demand. The industry is now operating at about 75% of capacity. Mr. Fairless, head of the United States Steel Corporation, has said that, "All in the world we really need is less pessimism, more 'Detroit talk' (confidence in itself and a boundless faith in the future) and a full realization of the fact that nobody has yet made a dime by selling America short." He is also quoted as saying that he expects his company to operate at about 80% of capacity in 1954 and that this will be a very satisfactory year. Some security analysts have calculated that United States Steel might maintain its rate of profits at that ratio of capacity. But the disemployment of 20 to 25% of the more than 900,000 steelworkers of the country would suggest serious maladjustment in a strategic sector of the economy even where the inventory problem was negligible.

The automobile industry cannot much longer sweep its inventory problem under the rug. It has been claiming it could sell almost as many cars and trucks in 1954 as in 1953. But its January production was 100,000 below its planned schedule and February has been further cut. Detroit has been declared a crisis area of unemployment.

The significant issue is not that inventories in January were not of crisis proportions but the nature of the forces that had caused them to appear; not the ratio of inventories to January sales but to possible May, August, and November buying levels.

(2) This brings me to my second point, namely, that I am less sanguine than is the Economic Report as to the prospect for a spontaneous upturn of business in the next few months. On this point, the President says, in his opening statement: "Our economic growth is likely to be resumed during the year, especially if the Congress strengthens the economic environment by translating into action the Administration's far-reaching program." And a reprise of this idea occurs in the closing paragraph of the Report: "Our economy today is highly prosperous and enjoys great basic strength . . . the minor readjustments under way since mid-1953 is likely soon to come to a close, especially if the recommendations of the Administration are adopted." If my analysis is correct, the maladjustment between agriculture's productive capacity and market outlets and between plant capacity and labor force in the steel, automobile, and some other important industries cannot be corrected within that time span. Conditions in these strategic areas will probably get worse or at least difficulties become more apparent before stabilizing adjustments have been made and full activity restored.

What We Did in Last Three Years

To get 1954 and 1955 in correct perspective, it seems to me necessary to take a good hard look at what we were doing in 1951, 1952, and 1953. In that period we were (1) mounting a substantial military offensive in Korea half-way around the world, (2) accumulating a vast store of military "hardware" for an apparently imminent World War III, (3) building a "broad industrial base" for fighting such a war or maintaining a high state of preparedness over the indefinite future and maintaining the lead in scientific and engineering development, and (4) maintaining a standard of living for the masses of our people higher than that of any previous time or any other country. The almost fabulous degree of success that we attained in this four-front operation measures the size of the readjustment which now has to be effected.

We have not merely reached a truce in Korea and pushed back the threat of World War III, and produced an extravagant surplus of types of hardware which will never be used and an adequate scale of supply for those that will. We have also during those 3½ years supplied current consumption at home so that our citizens boast they "never had it so good," and have made generous contributions to the well-being of many other countries of the free world. Beyond this, we have effected expansion and modernization in our industrial plant to the point where capacity is at many points in temporary excess, where many farms are over-equipped, and where modernization has taken the form of labor-saving mechanization and push-button factory operation to an extent which materially changes the future picture of labor demand. Our railroads in this period have completed a process of dieselization which lengthens the life of locomotive equipment and lowers costs of operation and future maintenance to a drastic extent.

The impact of these changes has not yet been fully measured but is beginning to reveal its magnitude just as the reduction in military drain is beginning to be felt. The President puts this matter succinctly, but in my judgment too mildly, in an opening paragraph of the Economic Report. He says: "A great opportunity lies before the American people. Our approach to a position of military preparedness now makes it possible for the United States to turn more of its attention to a sustained improvement of national living standards." As I have suggested, a full analysis would add: Completion of industrial preparedness has been accompanied simultaneously with, or a little in advance of, military preparedness. Beyond that, consumers' needs for housing, automobiles, and other consumer durables has been satisfied to a point where the keenness of the need has been alleviated and credit commitments extended to a point where the resiliency of the market to present cost and income arrangements is materially reduced at the very time that capacity for supply has been materially increased.

I do not deny for a moment the insatiability of human wants or the magnitude of the business opportunity which still lies ahead of American business. But I do want to emphasize that it is not simply a blueprint or formula operation to transfer this enlarged and now released productive capacity over into the higher welfare of our people that the President envisages. It entails a very complex process of making price and income adjustments, channeling tax flows, and scaling public spending.

Shortcomings in the Economic Report

If I may resort to military vernacular, I would suggest that the net effect of the Economic Report is to portray this situation as "Operation Little Switch" whereas in fact it will prove to be "Operation Big Switch." As to the nature of the operation, it seems to me a shortcoming of the Report that it devotes itself primarily to the phase of this operation that involves Government policies, fiscal and monetary. It gives but a shadowy hint of the processes of marketing, price-making, wage-paying, as well as relevant merchandising effort and investment programs.

Personally, I am quite reassured as to the course which this Administration has blocked out for itself and has indeed been following during the past year in the areas of debt management under Mr. Burgess and money management under Mr. Martin and the Open Market Committee. They grasped the opportunity which came to them—deplorably late—of fending off the latest threat of inflationary danger but stood by promptly to see that that check did not go so far as to produce a deflationary danger. I believe both these agencies, working in mutual respect and cooperation, may be counted on to play their special roles helpfully in the short-run readjustment period as well as the longer-run program of economic stabilization.

Turning from debt management to the taxing and spending aspects of fiscal policy, we face the question of the current lapsing of special Korean War taxes and its effect on 1954 business prospects. The Economic Report lists this as a support factor to both consumers and business spending under such recessionary influences as may be developing in 1954. This it undoubtedly is in a qualitative sense, but just what quantitative impact it will have at strategic points in the economic process is open to debate. It has been made the subject of pointed inquiry earlier in these hearings, particularly in exchanges between Senator Fulbright and Secretary Humphrey and Chairman Martin. The issue was: Do present tax abatements operate more in the direction of stimulation of business enterprise and economic expansion or more largely toward the maintenance of the purchasing power of consumers and the prevention of congestion in the market—with consequent curtailment of production? Collaterally, should further recovery measures, if they are found necessary, be beamed in the one or the other direction primarily?

To this question, Secretary Humphrey gave the conventional business answer; that the basic strategy of both short-run recovery and long-run stabilization should emphasize encouragement and stimulation to the business enterpriser. If conditions are made sufficiently favorable for him, he will give more jobs and pay more wages to consumers, who then can buy the enlarged product. A reading of the transcript will show that Mr. Humphrey made qualifying comments on the importance of the consumer's role. But as the Senator interpreted the Secretary and as the press reported him, relief to the businessman was the keynote of his economic philosophy. "Production is the goose that lays the golden eggs."

Chairman Martin was more concerned about consumer purchasing power but, when pressed by Senator Fulbright, "reluctantly" gave incentive to the business enterpriser priority over measures to improve the purchasing power of consumers even now.

The issue was further discussed by Stanley Ruttenberg of the CIO, by George Terborgh of the Machinery and Allied Products Institute, Gerhard Colm of the National Planning Association, and others. Mr. Terborgh emphasized the importance of measures "favorable to private investment." Mr. Ruttenberg, starting from the premise, "We cannot have a dynamic economy without new investments," posed the question: "What is the best way to stimulate such investments . . . encouraging corporations to make investments in new equipment and new plant, in the hope that such action will create job opportunities and an expanding economy? Or should policy be aimed at increasing the spendable income available to the mass of consumers, thus enabling the American people to buy up the product of existing plant and equipment and encourage expansion to meet ever-widening needs?"

His own answer was: "If our end is maintaining prosperity and building an expanding economy, we will have to stimulate consumers' income and increase the purchasing power of the American people. . . . This can be accomplished best, *at this point in time*, by increasing the personal individual income tax exemptions and by permitting excise taxes to lapse automatically on April 1, and even going further and reducing excises more than the automatic provisions permit."

Mr. Colm noted the interrelation of production and consumption but pointed on that,

"The President's Report emphasizes the needs to stimulate business expansion and investments in equity capital. It fails to demonstrate, however, that present taxes are actually obstructing business expansion or that the proposed changes would substantially increase investment under present conditions. In fact, it points out that business investments have been very high in the recent past in spite of the high level of taxes. . . . Production will not be stepped up unless producers expect an increase in their markets. Even a tax incentive for stepping up production will be ineffective unless the producer is confident that he will find consumers for his products."

Mr. Colm computed the additional income to the middle and lower income brackets from the expiration of war rates on Jan. 1 and from additional reductions included in the Administration program at only about $2 billion and what would be needed for a satisfactorily progressing economy at $20 billion!

Priority to Maintenance of Consumer Buying

While I regard this as an extreme comparison, it must be evident that the reasonable inference from my own analysis is that sound economic strategy for economic stabilization and recovery in 1954 would give maintenance of consumer buying priority over stimulus to plant expansion and modernization or the enlargement of profit incentives to operation. I have already pointed to the extent to which we have "caught up" on plant capacity during the last decade or so. Where emphasis is laid on the need to provide for expected growth of population, it must be remembered that we are just entering a dip in the population growth trend as the scanty baby crop of the depression years reaches maturity. As to modernization it should not be forgotten that, besides improvement in quality and the appeal of novelty, it aims strongly at labor-saving and the reduction of jobs in semi-automatic plants. Perhaps that could wait a little, while we see how well we succeed in getting full and prompt market absorption of the product of our already expanded and modernized plants—and farms.

Besides tax abatement, this bolstering of consumer buying power must come about from higher labor incomes or lower prices. Raising wages at this time tends to discourage full-scale employment at the same time that it buttresses consumer buying. Lowering prices facilitates the maintenance of volume sales, but at the same time tempts producers to curtail operations. Between this Scylla and Charybdis there is an open channel where costs of production are fully recouped and consumers' incomes are sufficient to command the whole output at prevailing prices. But a great deal of mismatching in this dual price-income structure has grown up in five years of inflationary boom and a great deal of revision will have to be worked out before the economy will be adjusted to changed and still changing conditions and stabilized at high productivity for the brilliant future that should lie ahead.

This is why I am less sanguine than the President's Report and than a considerable segment of the business community who believe that our present troubles or forebodings will be over within a few months. If the complex shifts, adjustments, executive decisions, group negotiations, pragmatic compromises, administrative adaptations, and legislative authorizations have been worked out so as to add up to a reasonably consistent and constructive total by the end of 1955, I think our system of free enterprise and democratic government would be giving a pretty good account of itself.

(3) The Economic Report clearly envisages the possibility that the present situation may show further deterioration rather than early recovery. It says (p. 72):

"Impressive as are the factors which justify confidence that the current settling or business activity will stay within relatively narrow limits, it should be recognized that periods of readjustment always carry risks with them. Continued imbalance could result in cumulative effects as one sector of the economy reacts upon another. Such reactions are partly psychological in character, but they are nonetheless real. . . . Whether they take one form or another, they could become impediments to smooth adjustment. To avoid the adverse consequences that existing uncertainties might generate, the Government should, and can, make clear its ability to face them and to take the steps necessary to deal with them."

The ensuing discussion of "Path-

"ways to Strength" is cast predominantly in terms of long-run stabilization policies or basic economic reforms such as revising the tax structure, correcting the farm support program, providing aid to housing, broadening social insurance, systematizing the planning of public works, and improving trade relations with other countries. Excellent though these proposals are *per se*, they are to only the most limited degree calculated to give first aid if a near-term recessionary emergency should appear. This is consistent with the Administration's evaluation of the present situation as a mild inventory adjustment. Of his recommendations for action by this Congress, the President says: (p. 76): "It is not a legislative program of emergency measures for the current situation clearly does not require one."

This I find a little hard to reconcile with the President's stress on preventive measures (pp. 111-112): "The thought that the Government can stand aloof until some price index or unemployment figure reaches this or that magnitude . . . is not a realistic concept of public policy. It overlooks the need for constant vigilance and preventive action, day by day and week by week." On what day or in what week would preventive measures against a progressive downturn in 1954 be brought into use?

Weapons at Disposal of Government

Assuming that that question will have an answer at the proper time, we turn to the assurances that action will be prompt and decisive and that the means for heading off recession and achieving recovery are ample. One paragraph on the next to the last page of the Economic Report sets this forth:

"The arsenal of weapons at the disposal of Government is very formidable. It includes credit controls administered by the Federal Reserve System, debt management techniques of the Treasury, and the authority of the President to vary the terms of mortgages carrying Federal insurance, apart from the wide extension of that authority recommended in this Report. It includes the administration of the budget, which permits more flexibility than is commonly appreciated, quite apart from new legislation or new appropriations by the Congress. It includes also other areas of action, such as taxation, public works, accelerated depreciation for defense plants, and the newly recommended agricultural supports. And if the powers possessed by the Executive should need to be increased to cope with some new economic development, the Administration will promptly seek from the Congress the additional authority that it requires."

This declaration raises two questions: (1) Can such further business deterioration as might develop in the second, third, or fourth quarter of this year be successfully combatted by action yet to be inaugurated? Or (2) is it sure that legislative action needed to implement even a properly conveived and properly timed policy of the Executive (or the grant of requested new powers) would be authorized by a regular or special session of the Congress without delay? I need not elaborate that issue before this committee.

I shall merely examine briefly the specific weapons of the "formidable arsenal" mentioned in the paragraph just quoted from the Economic Report and make brief comment on their recovery potentials.

(a) "Credit controls administered by the Federal Reserve System" have great power, vigorously used to damp off a boom and considerable powers to aid in a recovery movement once convalescence has got under way. But they have very limited powers to check a recession and virtually none to initiate a recovery. We may have full faith in the intention and ability of our Federal Reserve System to see that business has an adequate supply of money at all times but should not expect dramatic result from "pushing on a string."

(b) "Debt management techniques of the Treasury" can contribute to long-run stability of the economy and by their competence and flexibility can see that the very large funding operations of the Government shall not become a disturbing factor in the money market but be well adapted to the needs of other borrowers and the availability of money. Even the most skillful techniques of debt management cannot spark recovery if producer psychology or consumer behavior is adverse.

(c) "Authority of the President to vary the terms of mortgages carrying Federal insurance" is a really important defense weapon, and I hope the Congress will give early consideration to the President's suggestion that this power be enlarged. It is an important and somewhat vulnerable feature of our present situation that great numbers of people are heavily committed under farm and city mortgages and that many of them have Federal backing of one kind or another. While the terms of these mortgages have been greatly improved with the growth of long-term amortization, rigid adherence to even these terms in time of business recession may become an aggravating factor. Well-timed moratoria on such obligations can prevent foreclosures and the forcing of properties on a distress market. Postponement of these payments during a period of reduced income permits current resources to be applied fully to maintaining purchases of current needs and minimizes the strain on merchants and manufacturers. I would adjudge this a defensive weapon of considerable power to stem retreat but not an offensive weapon capable of opening a new advance.

(d) "Administration of the budget" also would permit tactical maneuvers that would bring financial reinforcement at points of special weakness and thus have some defensive value but not decisive fire power for launching an offensive.

(e) "Taxation" by leaving in the hands of businessmen and consumers more of such income as they already have would enlarge their powers to maintain the market for goods and services —to the extent that they would in fact spend this money in the face of such lack of profit incentive or fear of partial or full disemployment they might have. No one can appraise these possibilities *pro* and *con* with any accuracy, but I have already expressed my belief that tax relief to consumers would be, broadly speaking, more efficacious in our present economic situation than relief to producers and most efficacious if concentrated in the lower income brackets where spending pressure for necessaries of life is greatest.

(f) "Public works" seem to me to be held out in the Economic Report as promising more in the way of solution to a recession problem than can rightfully be expected of them. We cannot cure unemployment in the textile industry of New England by building more power dams in the Rockies. Labor populations are relatively immobile both by reason of training and experience and family and community ties. If a public works program keeps the construction industry reasonably well occupied, that is about all that could reasonably be expected, leaving the problems of other lines of business still to be faced.

The President's Report calls attention (p. 104) to a great backlog of "tens of billions of dollars" worth of public works "needed to keep abreast of the growth of the economy and to eliminate within, say, the next decade, the accumulated need for extensions or improvements of highways, schools, hospitals, sewer and water facilities, parks, forests, and other elements of the public estate."

The Report stresses here as well as elsewhere, the important part that states, municipalities, and other spending and bonding units have in this regard. If Operation Big Switch is to be carried through successfully, quite a slice of the nation's resources which have been flowing into the military build-up and the completion of the "broad industrial base" will need to be redirected to public works, locally supported but with some Federal aid. This will sometimes require local willingness to increase local taxes as Federal taxes subside and to vote bond issues at a time when citizens are disposed to caution because of the fact or the fear of less exuberant boom conditions. Mr. Freeman of the State of Washington discussed this issue most ably in the panel of Feb. 10. He concluded: "It does not seem likely that more than about one-third of the planned drop in Federal expenditures can be offset by state and local spending in the next two years."

(g) "The newly recommended agricultural supports" are, except in the case of wool, aimed at lowering the over-stimulative price level in this area. I believe they are soundly conceived for the economic health of agriculture and the long-run stability of the economy. I do not see how they add to the formidable arsenal of weapons against the current recession or could contribute to an upturn this spring, summer, or fall.

Not a "Prophet of Doom"

I would repudiate any suggestion that that I have said here or elsewhere brands me as a "prophet of doom" or allies me with some mythical "fear deal." To quote from a distinguished member of this committee (Senator Douglas): "We should not be frightened but we should be alert. And the watchman who gives a warning to the people in due time so that they can protect their interests is serving the public more faithfully than he who administers sleeping tablets to get people to believe that all is well and nothing need be done—only to find that the danger later bursts upon an unprepared public."

And repeating my own words at a bankers' meeting last September: "It is my conviction that no one can scare a sound economy into a depression and that Pollyanna cannot keep business errors and Government subterfuges from facing an ultimate day of reckoning. We stand a better chance of checking recession before it gets out of hand and of initiating real and timely recovery measures if we unshrinkingly dig out and face the facts, however unpleasant. . . .

"We are treading fresh ground. No policy-making or administrative group has ever had practical experience in getting so big an economy as ours, constituted as we are, and with such institutions as we have developed, down from a highspeed (but not runaway) boom onto a steady level of 'normal prosperity.' The burden of proof is on those who are so sure we can do it with only an almost painless process of gentle deceleration. Our chance of succeeding will be increased if we do not underestimate the difficulties of the problem or overestimate the efficacy of the available means of control."

Continued from page 12

How to Stabilize Purchasing Power Income From Foreign Loans

government a bale of goods which is equivalent in value, according to the index number of the creditor's country, to any loss the debtor's country had sustained.

Unprotected Capital Exports

Not all capital exports come under the scope of the purchasing power plan. In the first place, it is quite apparent that shares of common stock and other equity claims could not be given a guaranteed value.

Less obviously, some debt instruments could not be registered to receive purchasing power protection. The dates of payments to be made by debtors could not in any way be left to the discretion of creditors or debtors, for such freedom might well result in contracting governments bearing unnecessary losses.

Nor could national governments formally make or receive such protected loans, for officially there would be four contracting parties for each protected loan: a debtor, a creditor, the government of the debtor, and the government of the creditor.

Governments as Debtors and Creditors

Although officially a national government could neither make nor receive a protected loan under the plan, in actuality it could by resorting to a legalistic stratagem create an agency technically independent of itself. Upon this agency could be conferred the right of any citizen to contract purchasing power loans with citizens of other nations.

In case one national government wished to contract a loan with another national government, it would be possible to negotiate one tied in some manner to purchasing power, but such loans would fall entirely outside of the proposed plan for private loans. For intergovernmental loans the division of gain or loss, should trade terms change, would be the main bone of contention. One possibly feasible solution would be to have the borrowing nation repay with its own currency the amount of purchasing power it had received, measured in terms of its own price index.

If the suggested solution were agreed upon, the creditor nation would get all of the gain if its terms of trade had worsened, whereas it would bear all of the loss if its terms of trade had improved. It is worth repeating, however, for the sake of emphasis, that such intergovernmental loans would fall outside the scope of the purchasing power plan for private loans.

Free Exchange Rates

The reader will have noted that the purchasing power plan would minimize the significance of an important objection to fluctuating exchange rates, for it protects debtors and creditors from being damaged materially by rate changes: a debtor would have to repay more money than he had originally planned to only under inflationary conditions which generally make money more easily obtainable, whereas a creditor would receive less money than he had originally expected only if each unit of his country's money should become worth more than it had been worth.

Therefore those who would prefer to allow supply and demand to determine foreign exchange rates should welcome the purchasing power plan, which would make flexible rates less hazardous.

Consequences of the Plan

The proposal if adopted would probably have at least three major consequences:

(1) More capital exports.

(2) Less opposition to flexible (fluctuating) exchange rates.

(3) An intensified demand for domestic investments with assured purchasing power.

Nothing more need be said here about the first two of these three consequences. As for the third, it is probable that there exists at present a strong latent demand for ways to invest savings with some assurance that a rising price level will not destroy real capital values. The willingness to buy endowment policies from insurance companies, for instance, is no doubt to some extent inhibited by remembrance of the fact that the inflation caused by the way World War II was financed caused insurance policies and U. S. Savings bonds to lose some of their real value.

If the purchasing power plan were put into operation, it is likely that many would wonder out loud why savings could not be invested at home with the same purchasing power assurance. In response to this public interest, probably some domestic corporations, and possibly some domestic governmental units as well, would respond by issuing bonds with guaranteed purchasing power. This might well furnish an opportunity on the part of those institutions that cater to marginal savers, e.g., insurance companies, to increase the volume of their business, for it would be possible for such institutions to offer prospective clients something it was never possible to offer before — assured purchasing power.

A final consequence, then—one not explicitly stated in the list of three—might be a lowering of the propensity to consume, because saving might become perceptibly more attractive to many. Whether this increase in the desire to save would develop is problematical, but if it should develop it is unlikely that it would be carried to an unhealthy length, for indeed much of the additional savings would go abroad, there to augment the demand for American exports.

Marsico Heads Fund Comm. in Campaign

Charles K. Marsico, partner of Merrill Lynch, Pierce, Fenner & Beane, has joined the Exchange Committee of the 1954 Development Fund Drive of the New York Arthritis and Rheumatism Foundation, it was announced by William Holmes, general campaign chairman.

The New York Campaign, has set a goal of half-million dollars as its share of the Foundation's $5 million national goal. The funds will aid the 500,000 New Yorkers who suffer from some form of rheumatic disease, and will be used to support the Foundation's four-point program of establishing and supporting arthritis clinics, promoting research, rehabilitation of the arthritically handicapped and supplying information to physicians and the public.

"Continued support of the Foundation," Mr. Marsico said, "is necessary if it is to carry on its program of aiding those now suffering from this form of disease and of eventually finding a cure."

Continued from page 6

Investment Policy and the Economic Background and Outlook

cline, tight money is a traditional forerunner of depression.

Surely the widely heralded predictions of recession have served to dampen speculative zeal. The stock market, moreover, has needed no dampening, as it has behaved with commendable sobriety for 15 years.

(2) As a corollary, the behavior of commodity prices certainly gives no evidence of forced liquidation or the imminence of the onset of depression. While there have been wide variations of price movement among individual commodities and while the impact of a buyer's market may put some pressure on finished goods prices as the year progresses, it should be noted that the firm tone of overall commodity prices in 1953 has carried into the current year to date.

(3) Though personal incomes have trended downward in recent months and may continue to decline moderately in the months ahead, nevertheless they are at historically high levels. The demand for consumers' goods is buttressed by this high level of income as well as the immense liquid assets in the possession of individuals.

(4) While business expenditures for plant and equipment and inventories may be somewhat lower in 1954, there is as yet no evidence that they will suffer more than a moderate decline and that they will not still be high as measured by any standards except those of 1953. Moreover the probable moderate decline in business and defense spending may be offset in part by increased expenditures for public works by local and State governments and, if deemed necessary, by Federal Government aid to such projects.

Government Ready to Take Action?

(5) This brings us to another major positive factor in the outlook. Surely the Administration is acutely conscious of the danger of a business slide, not only to its own political fortunes but to the welfare and defense of the country. We have evidence of its determination to move vigorously with counter-deflationary measures. At what point active intervention might take place I do not know; but I suspect that plans already set will move off the drawing boards if unemployment reaches the level of four to five million. Aside from this, positive measures have already been adopted. In line with its flexible monetary policies, the Administration has supplemented in the past six months the normal forces making for easier money conditions; and it is likely to continue its policy of monetary ease so long as the business downtrend continues.

The economy will also enjoy the stimulus of an enlightened easing of the tax burden. The excess profits tax has been eliminated; and, more important, as a factor sustaining consumer purchasing power, individual income taxes have been reduced. Other constructive tax measures are in prospect; for instance the proposal to extend the principle of accelerated depreciation might stimulate the purchase of capital goods; and one of the most important developments of the past 20 years, so far as the stock market is concerned, is the proposal to make a beginning in the elimination of the double taxation of corporate profits. The proposed tax credit on corporate dividends of 5% in the first year, 10% the second year and 15% the third, would greatly stimulate the flow of individual savings into corporate equities.

And this brings me to the most important factor in the outlook, both near and long-term, namely the creation of a politicial climate congenial to the growth of business and investment confidence. It defies the imagination to conceive the possibilities of growth and expansion inherent in our economy within an environment that is friendly rather than hostile to legitimate and constructive private enterprise. It is clear that business and Government leaders are cooperating closely to produce such a climate. I need mention only the recent statement by the management of General Motors that the company plans to spend a billion dollars for plant expansion and improvements over the next two years; the surprising and most welcome Bethlehem Steel dividend declaration; other favorable dividend announcements and statements by business leaders; and the vigorous and sanguine tone of pronouncements by major government officials in which they clearly recognize and state the need of a healthy and expanding economy as the foundation of a diffused prosperity and the general welfare. For those of us who have lived for years under the shadow of official suspicion and hostility this is a significant and inspiring development which in time should pave the way for what may come to be known as the Eisenhower Boom.

Public Confidence

For a number of years past there has been noteworthy evidence of a lack of public confidence. This is reflected in the abnormally high rate of personal savings, the abnormally low yields of so-called "riskless" investments, the abnormally low rate of market capitalization of corporate earnings, the abnormally low prices of risk securities in terms of the purchasing power of the dollar and the abnormally high yields provided by good common stocks as related to the yields of high grade corporate bonds.

My firm has maintained for many years a so-called "index of confidence" which expresses the ratio of the yield of Moody's 200 representative common stocks to the yield of Moody's AAA corporate bonds. Over the past 25 years the normal, that is the average ratio has been about 1½ to 1, that is the yield of good common stocks has been about 1½ times the yield of high grade taxable bonds. As an example of the extravagant heights to which human hopes can soar, in 1929 common stock yields were only two-third's the yield of best grade bonds. At the other extreme, in the first quarter of 1942, common stock yields were 2½ times high grade bond yields. This ratio has remained consistently well above average ever since; and in the last quarter of 1953 it was 1.8 to 1. Moreover this ratio has derived from a persistently low dividend payout. For what it may be worth, and not by way of prediction, on the basis of 1953 earnings, a normal payout of such earnings and an average relationship of common stock yields to prevailing high grade bond yields, the Dow Jones Industrials could sell at 400.

Longer Term Outlook

With regard to the longer term outlook, the dynamic character of our economy derives principally from the rapid increase of our population accompanied by a steadily rising standard of living. As a result of the sharp rise in marriages during the War years and the current fashion of having a lot of babies our population has risen rapidly from 129 million in 1939 to 161 million in 1953, or about 25% in 14 years. Because the fewer children of the depression years of the early thirties are now of marriageable age, this rate of increase may slow down somewhat for a few years, but unless fashions with regard to the number of babies per family change, our population curve should again be in a lusty uptrend as we approach 1960.

The increase in population is, of itself, no surety of economic dynamism. Indeed, in those countries such as India and China, with a static or declining standard of living, an increase in population is a disaster rather than a boon. It is the driving force of our restless and expanding research that serves not only to satisfy the wants of an increasing population but to create new wants and higher standards.

During the dismal days of the thirties the New Dealers' economists were wont to tell us that ours is a mature economy, that there are no new frontiers. We are now discovering that the frontiers of the mind are infinite. The conspicuous characteristic of the past 15 years has been the massive and varied research activities in every field of human endeavor which derived great impetus from the exigencies of War and which appear to be driving forward at an accelerating pace. It has recently been estimated that we are spending about $4 billion a year on research. We can confidently expect over the longer term a rising trend of industrial production at a rate greater than the anticipated increase in our population.

The Stock Market Situation

Another factor to be taken into consideration so far as the long term outlook for common stock prices is concerned, is the huge amount of inflation frozen into our economy. Since the 1935-1939 period the money supply has risen 250%, commodity prices 120% and weekly wages 220%. If we adjust for the decline in the purchasing power of the dollar since 1935-1939, the Dow Jones Industrials would currently stand at a level of about 145. This incidentally was the average level of this index in the 1935-1939 period, which was certainly not an era of exuberant expansion.

The Dow Jones Industrials have recently reached a new 24 year high. Yet, as we have seen, these prices are low rather than high if they are related to corporate earnings, dividends or the purchasing power of the dollar. Since 1946 the average price-earnings ratio of the Dow Jones Industrials has been about 9 times and at the end of 1953 the price of this average was about 10 times earnings for that year. This compares with an average ratio of 17 times in the 1935-1939 period. These ratios reflect a continued low state of investor confidence and the absence of speculative public participation in the market.

Another element of strength underlying the stock market is the great increase in book values of representative common stocks since 1939, which reflects of course the retention in the business of a major share of corporate net earnings. In that period the book value of the Dow Jones Industrials rose from $95 to $225 per share. That the market has not reflected the full degree of this expansion of the earnings base is revealed by the fact that the ratio of market prices to book values of the Dow Jones Industrials declined from 146% in 1939 to 125% in 1953.

It should be recognized that, under the conditions which we have envisaged corporate net earnings in 1954 will probably decline from the 1953 level. Whatever our estimate of the overall rate of business activity for this year, one thing appears certain—it will be a period of greatly intensified competition, higher selling costs and narrower profit margins as we complete the transition to a buyer's market. This is the prospect for the most efficient. The outlook for the marginal companies under these circumstances is dim. I believe that it is fair to assume that average net earnings of the Dow Jones Industrials type of companies may be as much as 15% below those of 1953 despite the elimination of the excess profits tax.

It might be noted that a decline of this degree would still leave the Dow Jones Industrials at about 12 times earnings at current prices. I am not suggesting that prices might not sag under the impact of declining earnings, though there would be plenty of precedent if they did not. It is a curious fact that the Dow Jones industrial average has moved in a direction opposite that of the trend of earnings in eight years of the last 14, including 1953. I am suggesting that in view of the probable limited and orderly nature of any business and earnings decline that might occur and in the light of the favorable longer term outlook as related to current prices, the investor would be justified in keeping a major part of his common stock fund employed in equities of a strong investment caliber, and that he might hold a modest reserve, say 15 to 20%, of his common stock fund against the possibility of such periods of unsettlement as might develop in the course of the year.

I should like to emphasize, however, the desirability of confining common stock holdings to those of companies which are preeminent in their fields on the basis of management, research facilities, financial strength and relatively low operating costs. Despite the sharp decline since 1946 in the prices of secondary stocks, I believe this is no time to purchase equities of marginal companies. Under the conditions lying ahead the best is none too good.

This is essentially the policy which we are following currently in the management of the investment company portfolios under our administration. In this connection I should like to make this one final observation. For the average investor the best medium for the attainment of satisfactory investment experience is to be found in the purchase of the shares of well managed and seasoned investment companies whose declared and achieved objectives best suit his investment needs. He thereby, in effect, transfers to experienced investment management his problems of timing and selection and procures a carefully supervised and balanced participation in the long-term growth of American equities which appears to lie ahead.

Continued from page 12

Status of Television in Europe

cabinets under Italian trademark names.

The prices of receivers in Italy and in Europe generally are higher than in the United States. A 17-inch set costs about $425.00 to $450.00.

Some Cathode-ray tubes are being manufactured in Italy but most of the glass blanks are being imported from the United States or Holland. Italian receiver cabinetry is rather poor when judged by U. S. standards.

Programs in Italy for the moment originate in Milan and are exclusively films. However, it is expected that in the near future live programs will be included, and studios are presently being planned for the various cities.

Switzerland

Switzerland's first television station in Zurich is experimentally on the air two hours a day, three days a week. It is one of five stations planned to cover all Switzerland. The transmitter is located on Uetleberg Mountain right outside of Zurich and covers an area with a population of about a million-and-a-half people. Power is approximately 500 watts. One studio is presently being used for all of their broadcasts and they are, of course, using occasional films as well. Equipment is a mixture of Swiss, English and American. So far there are no Swiss manufacturers of television receivers of any consequence. Most of the receivers have been imported.

Sweden

There is a small 1 KW experimental station in Stockholm but very few receivers outstanding. One or two larger companies are considering manufacturing sets in the near future. One large company is doing considerable research on color television. Programs are spasmodic, mostly filmed and broadcast only a very few hours per week.

Denmark

This nation is broadcasting on the CCIR European system from one small studio in Copenhagen, using a 500 watt transmitter. The station uses borrowed equipment including Iconscope cameras. A 10 KW transmitter is planned in a new location as well as new studios. Broadcasting is presently limited to two hours per night, five days per week, on European channel 4. There is no local production of television receivers of any consequence. A few have been imported. Programs are presented on film and live.

Norway

This country has an experimental 500 watt transmitter near Oslo on a 1,800 foot mountain. The Norwegian Government is expected to provide additional funds for TV in the near future.

Overall European TV Scene

Since the frame frequency all over Europe is 25 frames per second when the receivers are turned up in brilliance, there is a slight flicker which, of course, does not exist in the United States because of the higher frequency of 30 frames per second. On this account, European television receiver manufacturers do not require the high accelerating voltage that we do for our receivers. They can therefore be made with less expensive components.

Generally speaking, the programing in Europe today is about equivalent to what it was in the U. S. A. some time in 1946 or 1947 with, of course, the exception that there are today no commercials. Without these stimuli it is likely European television will have a much slower growth than that in the United States. Also there is no large middle class in Europe who can buy these receivers. Therefore, it is logical to assume that from an economic standpoint, even with lower taxes, it will take considerably longer for television to become a generally used form of entertainment and communication than in the United States. It must be kept in mind that, whereas the cost of a television receiver represents less than an average month's pay in the United States, it represents almost eight month's pay in Europe.

To date there is no television in Spain or Portugal or Ireland, although East Germany does have a station in Berlin. There are also

stations in Moscow and Leningrad, but it is understood they are using very small size picture tubes for their receivers. The largest number of television receivers anywhere in Europe is in Great Britain, served by a plurality of stations operated by the British Broadcasting Corporation in Scotland, England and Wales.

At the time of the Coronation, there was an interchange of programs between England, France, Belgium, Holland and Germany effected by picking up the picture on a British receiver in France and rebroadcasting it on the French 819 line system and on the Europeon 625 line system. (The British are using a 405 line system.)

There is considerable talk today of an overall European television network. It had been thought this could be inaugurated by Christmas of 1953. Technical difficulties have intervened, and the Swiss who are in a key position geographically in this respect, expect to have it in June, 1954.

The French are planning a television network in Morocco consisting of three stations, the principal one to be located in Casablanca. It will operate on the 819 line French system but it will be sometime before it is in operation.

Turkey has also planned television in the not too far distant future and there is presently an experimental station in operation at the Technical University of Istanbul which is operated on very low power on the CCIR system.

Continued from page 10

The Shape of Things to Come

least for the future, the evidence points to an abundance of the raw materials out of which leadership can fashion the shape of things to come.

In United States Steel we are particularly conscious of the ability within the construction industry. Just a year ago, we placed our new Fairless Works near Morrisville, Pa., into operation. It is a completely integrated steel plant with an annual capacity of 2,200,000 tons of ingots. Now, I don't have to tell you that the construction of such a plant is no simple task, particularly when a portion of the plant site of 3,800 acres had to be raised in elevation some to 10 to 15 feet before actual construction could be started. But with 200 prime contracting firms supported by 2,000 sub-contractors and thousands of other contractors and suppliers all putting their knowledge and skill and manpower and mechanical equipment to the task, it was possible to cast the first blast furnace and tap the first open hearth in slightly more than 22 months, after the ground breaking.

Almost simultaneous with the Fairless Works development was the vast undertaking of our Orinoco Mining Company in Venezuela. This past January we brought the first shipload of iron ore from Puerto Ordaz to Fairless Works only two years after construction work was begun.

Within that time, mining and ore preparation equipment was installed, a railroad and a highway were built to connect the mine with the Orinoco River 90 miles to the northeast and an ore loading dock was erected at the river.

Since this new industry was created in a sparsely settled, undeveloped territory, none of the facilities needed to conduct mining operations were at hand. All had to be transported to the site and erected.

Now this complex task is largely completed. And at both the mine site and the river port entire new towns have been built, complete with houses, schools, hospitals and other civic structures, along with electric power, water and sewer systems and other service facilities. You may be interested to know that all of this required an estimated 386 direct suppliers, ranging from 55 prime contractors and almost 100 manufacturers of equipment to 75 jobbers of various types.

These are merely two examples of the construction activity for new facilities and improvements, that, in the past eight years, have required expenditures by U. S. Steel of $2.2 billion. It is also part of the more than $5½ billion that the entire steel industry has invested in new plants and equipment during the same period of time.

Similar construction is under way daily in almost every section of the nation. In every industry, your organization, which I understand represents 80% of the builders of America, is making a monumental contribution to growth and progress.

Great and positive forces are building up. A whole new concept of living is now emerging from the laboratories and coming off the drawing boards. The way in which we plan and think and act in the days ahead will be of vital importance as to whether we capitalize on these new frontiers.

Increased Population Factor in Expanding Economy

First of all, I believe the increase of our national population will be one of the most important factors in expanding our economy. It is impossible at the moment to assess its full impact. Our population by 1960—just six year from now—will be an estimated 180,000,000 persons, or an addition of 20,000,000. This accelerated increase will create additional demands for everything from baby carriages to insurance policies.

Already symptomatic of this increase in our population is a growing movement to the suburbs by millions of Americans. It is estimated that 19% of our national population now resides in suburbs. The real importance of this exodus is not necessarily in the numbers of people, but rather in the effect this type of living will have on the economy. The creation of new communities, of course, means the construction of millions of new homes. But beyond this, new communities mean new roads and highways, new medical and hospital facilities. They mean expanded methods of transportation and communication, water supply systems, increased electric power facilities, mile after mile of pipelines. They mean modern shopping centers, new post offices, new town meeting places, recreation centers and, most importantly, new schools and churches.

The school problem in America today is almost a frontier in itself. Enrollments will increase by one-third, within the next five years alone. As an example of how this increase will affect our present school facilities, studies reveal that 425,000 new classrooms will be needed by 1960. This is in addition to the backlog of almost 350,000 classrooms which are currently needed but not yet built. The cost of this new school construction program at current prices will equal the total amount spent last year for all construction in the United States.

The needs of our increasing population alone indicate tremendous potentials and opportunities for every person in the nation. There are other frontiers, of course. We are at that stage in our national age where facilities in many of our cities are becoming obsolete. Here in Los Angeles, for example, I understand that there is a difficult traffic problem. But this community is setting a pattern for the rest of the nation by undertaking the building of a system of expressways which will link every populated section of Greater Los Angeles.

Cites Construction Activity

If you will pardon a home-town example, Pittsburgh, Pa., is in the midst of a re-development program which has seen five new multi-storied office buildings already erected, with five more proposed for the future. There are new parking garages, new parks and recreation centers. There is a $100 million limited access highway, and a $30 million new airport, second in size only to New York's Idlewild. There is a flood-control program involving the construction of eight reservoirs and dams. And directly or indirectly connected with this redevelopment, $1 billion has been spent in the area for industrial expansion.

In Houston, Chicago, Denver and just about every large city one could name, the same situation prevails. Everywhere there is progress, and plans are under way for still greater expansion and re-development of our cities.

Another frontier that is virtually racing in on us at this moment is the prospect of a radically different world based on atomic power. Who could accurately predict what may be the potential of industry and our economy in the atomic age which we are presently entering. The possibilities undoubtedly are greater than anything we have seen so far.

In electronics, we have another area and one which has been crossed only partially. One phase of this field of electronics that is important for businessmen these days is the prospect of more extensive automatic operations in industry — operations that can mean greater productivity in our plants and factories and all of the impetus which increased productivity can give to our economy. Success in adapting electronics or "automation" to industrial processes may result, among other things, in an entirely new concept in plant layout and industrial construction which, by the way, is a new frontier in your own industry.

Research in our laboratories in physics and chemistry has taken on 3-D proportions. The stimulus which such research can give to new business, new products and new ideas in every field is beyond assessment. In each cubic mile of sea water, for instance, there are an estimated five million tons of magnesium awaiting the long arm of technology to develop its use competitively, for the benefit of mankind. The chemical industry has progressed to the stage where its magic can turn soybeans into paint, natural gas into television sets and coal into shower curtains. And I was told not too long ago that they had also succeeded in turning a sow's ear into a rayon purse—which is only a little short of the proverbial silk—a thing that men have always said couldn't be done.

Another Ingredient Is Business Initiative

The shape of things to come requires one more ingredient. It must be clear to you by now that if we completed nothing more in building for the future than the items I have already mentioned we would make the past few decades look like the "Gay Nineties" in comparision. The truth of the matter is that I merely touched on the more obvious opportunities that confront us. There are many more awaiting us.

When the A B C building blocks were setting young imaginations on fire, when this nation began in earnest to turn engineering theories into the engineering marvels of modern bridges, multi-storied buildings and vast manufacturing facilities, our nation possessed the special and vital and necessary ingredient of unfettered private capitalism. The general atmosphere then was conducive to individual initiative and business enterprise on a scale as big or as small as the situation warranted. A man with an idea, or a business with a new product, could find justification in taking a risk, for the rewards were worth the effort.

Of course, we do big things today. We can still take a new idea, like frozen foods, and turn it into a luxury, and then into a necessity found in almost every home in the land. We can build roads that just a few years ago were known as "dream highways." We can even tear down our cities and build them anew. But we are very much like the farmer who was approached by a young traveling salesman and asked to buy a set of books on "How to Farm Successfully." After a long sales talk, the farmer stopped the young man, shook his head and said, "Son, I don't need those books. Why, I ain't farming half as well now as I know how."

And that is the dilemma in which we have found ourselves for a number of years. Due to the intervention of external forces, it has not been possible to conduct our affairs "half as well" as we know how.

Developments of the past year indicate that we are at least facing in the right direction. We hear of measures being taken by the Federal government to stimulate business. Some of our government economists seem to have realized at last that a system based upon the creation of wealth will grow faster when impetus is given to expand its productive capacity in ways which also stimulate its capacity to consume.

Our greatest problem, therefore, in the years ahead may well lie in developing a better understanding of the benefits and advantages that accrue from our economic system. Historically, our economy was based upon the sound principle that if due attention were given the creation of wealth, this country could produce a larger economic pie with proportionately larger pieces. To that end, we endeavored to maintain our facilities at their highest efficiency. We re-invested earned income in new plants and equipment that enabled us to produce more goods and services at less unit cost. We endeavored to maintain a reasonable relation between the rate of pay a man received and his rate of productivity.

In recent years, however, this balance has been distorted. The result has been that gains on the part of one segment of the economy were achieved, but not earned, and therefore, they were gains that served merely to inflate the economy and not produce a real growth. Benefits which accrue to any individual or group of individuals must be earned if we are to produce wealth, rather than divide it. They must be the result of greater effort, greater productivity, if they are to contribute to the strength of the over-all economy. No important part of the costs accrued by one generation should be passed on to the next.

Cooperation, Not Conflict

We know, of course, that capital, labor and management have a fundamental mutuality of interest. Cooperation, and not conflict, should be the dominant characteristic of such relationships. The attitude of each group should be constructively centered on the product or service which is the real purpose of the enterprise.

We must realize that the value of money lies only in its ability to command goods and services in exchange. We are all in competition when it comes to quality and, at the same time, we must produce and sell quality products and services at the lowest possible cost in order to return an adequate net profit after taxes. Only by rendering a superior service on a competitive basis can we build soundly and effectively for our present and the future. Our success in the years ahead, therefore, depends largely upon the extent to which we can increase individual and group interest to work, in *esprit de corps* and in a winning morale.

Scars of Socialistic Drive

The Socialistic drive through which we have come has left many deep scars. During the last generation, for instance, almost a thousand billion dollars of earnings of our citizens were taken from them and expended by governments within the United States alone. In case you are not familiar with sums that large, I can tell you that this is almost twice the total amount of money spent on construction in the United States from 1919 until the end of 1953. To maintain such spending, government has increased rates of taxation until today about one-third of what we earn is taken away in taxes.

There have been many occasions when our fate has hung in the balance — and some of the escapes have been very narrow. I would not bring this matter up otherwise, but do so only to emphasize that freedom and the rights of the people have been held in security at times only by the most tenuous of threads. You will recall the steel seizure almost a couple of years ago. When all of the clamor had subsided, when the arguments were out of the way and the country had heard the decisions of the highest court in the land, how many of you sat down and reflected that the opinions of only two Justices stood between you and revolutionary change in the foundation of America.

It is certainly not too soon and, hopefully, not too late for us to return to our homes, and figuratively speaking, "hang the lantern from the old North Church."

I would not have missed this opportunity to be with you today. You have been a grand and patient audience and I trust we have discussed viewpoints which will strengthen your faith and courage to help build and guide our nation toward the greatness it deserves. It is men of your vision and capabilities who must play a positive role in determining the shape of things to come.

And finally, in the future, should any of your tasks become a little difficult, I should like to leave this further thought with you. I do not know where it came from, but it was repeated to me long ago by an old boss of mine. It went something like this:

Here's to the man who plans
things, builds things, makes
things.
Who prates not of wonders of old,
Nor gloats upon ancestral gold;
But takes off his coat and
takes ahold
AND DOES THINGS!

Mutual Funds

By ROBERT R. RICH

ON BALANCE 1954 should prove a favorable year for owners of well selected common stocks, according to a statement to shareholders by the management of Group Securities.

"This quarter was a period notable chiefly for broadening confidence in the outlook," the statement said. "While general business activity continued to recede slowly from its all-time peak, consumers' purchases — a critical factor — were well maintained, inventory adjustments proceeded in most lines with little serious hardship, and plans for plant expansion and new equipment—that most dynamic factor—continued close to last year's high levels.

"The Administration's program of tax adjustment and the successive steps taken to lower interest rates encourage those who for many years have taken refuge in tax-sheltered bonds to begin to resume the risks and obtain the rewards of ownership.

"That overworked word 'climate' best describes the change in background which so profoundly affects the securities markets. The 'climate' has undergone a transformation which professional investment managers can sense better than they can define. It should, in our opinion, so enhance the investing public's appraisal of the value of corporate earnings and dividends as to more than compensate for any shrinkage in their amounts that can reasonably be expected."

KEYSTONE CUSTODIAN Funds, Inc., Trustee, announced that the combined assets of the 10 Keystone Funds on Jan. 31, 1954 amounted to $229,989,800 as compared with $220,217,600 a month earlier and $216,818,500 six months earlier.

Keystone's Low-Priced Bond Fund, whose 60 low-priced bonds held on Jan. 31, were chosen from 143 usable issues in the class as the most attractive for production of income, reported a 1.7% gain over the class and a 2.7% increase in per share net asset value during was the first half of the current fiscal year. There are the results:

	July 31, '53	Jan. 31, '54
Total net assets	$43,067,839	$45,230,752
Value per share	$17.58	$18.05

Keystone's Lower-Priced Common Stock Fund "S-4," whose 60 issues held on Jan. 31, were selected for their prospective speed of move from what is normally the fastest-moving class of common stocks. The Fund reported an increase in net asset value and a better capital performance than that of its class, which declined 2.5% in the same period. This was also better capital performance than registered by other comparable indices of lower-priced stocks, some of which reached their highs in 1951 and have declined 30% or more since then. These are the results:

	July 31, '53	Jan. 31, '54
Total net assets	$8,149,187	$8,222,572
Value per share	$6.37	$6.42

TOTAL ASSETS of the National Securities Series have crossed the $150,000,000 level for the first time in the 14-year history of the Series, E. Waln Hare, Vice-President of National Securities & Research Corp., reported today.

Total assets of the seven mutual funds comprising the Series sponsored and managed by National Securities & Resarech reached $150,600,000 on Feb. 26, a rise of $17,600,000 since the 1953 year-end.

In the first two months this year, sales volume totaled $10,700,000, an all-time high for the period and an increase of 16% over the $9,200,000 total reported for January and February last year.

Some of the major increases in portfolio holdings of the Series in the first two months this year were: 33,000 shares of Grumman Aircraft; 32,000 North American Aviation; 27,000 Chesapeake & Ohio RR.; 20,000 N. Y., Chicago & St. Louis RR.; 18,000 Ballard; 18,000 Armco Steel; 14,000 Chrysler, and 11,000 Republic Steel.

BROAD STREET Investing Corporation's gross sales of new shares totaled $1,068,000 in February, highest for any February in the fund's history. Total gross sales for January and February were $2,144,000, up 77% from the same period last year, and an all-time high for any two-months' period since the fund began operations in 1930. Net assets of Broad Street Investing have risen above $41 million, compared to assets of $36 million at the beginning of the year, a rise of almost 14% in two months.

JAMES H. ORR, President of Gas Industries Fund, stated that total net assets of Gas Industries Fund are now approximately $24,335,000, equivalent to $20.54 per share on the 1,184,661 shares of the fund outstanding. During the month of February the fund passed the $24 million mark for the first time.

TOTAL NET assets of Group Securities Inc. were $57,026,939 at Feb. 28, 1954, compared with $54,387,746 at Nov. 30 last, the end of the 1953 fiscal year, and $52,493,205 six months earlier. Sales in the company's first quarter were 43% ahead of those for the preceding quarter, continuing the gains reported for 1953.

HARRY H. HAGEY, Jr., President of The Stein Roe & Farnham Fund, announced that at the annual stockholders' meeting elimination of the 1% redemption fee was approved. Hagey pointed out that The Stein Roe & Farnham Fund is one of the few funds in which investors can buy or sell at net asset value without any commissions or charges. He also reported an increasing use of the monthly purchase plan as a means of regular saving.

Three promotions were announced at the same time. Richard H. Templeton, formerly Secretary, was elected Vice-President; Robert A. Woods moved up from Assistant Secretary to Secretary, and Alden L. Odt, formerly Assistant Treasurer, became Treasurer.

Net assets of the fund have passed the $7½ million mark compared to $7.1 million at the beginning of the year.

TOTAL NET assets of Commonwealth Investment Company are in excess of $70,000,000, the highest in the 22-year history of the fund. Over 10 million shares are now outstanding and the number of shareholders is over 40,000.

THE LARGEST monthly gross sales in its 24-year history were reported by Fidelity Fund. Edward C. Johnson 2nd, President, said purchases by the public of the Fund's shares in January had a gross value of $2,326,061 for a 30.1% increase over the same month last year.

NET ASSETS of Growth Industry Shares, Inc., at the end of 1953 were $3,662,000, a new high and up better than 14% from $3,204,000 on Dec. 31, 1952. Net asset value per share was $25.91 against $24.61 on June 30, 1953, and $27.95 at the end of 1952. Shares outstanding showed the largest year-to-year gain in the company's history, reaching 141,335 on Dec. 31, against 114,637 a year previous.

Portfolio income was well maintained last year "because management decided to keep funds rather fully invested in what seemed more like a year of transition than a forerunner of depression." Looking into 1954, Harland H. Allen, President, sees another year of "high selectivity in security values. . . . Backlogs have been building up for an unprecedented number of new industries. As some of these make headway, despite international tensions, selective investment opportunities put in their appearance. Such are the makings of selective opportunities in 1954—perhaps in electronics, air conditioning, new sectors of chemistry, metallurgy and certain areas of 'automation.' "

NEW STOCKS bought for The Common Stock Fund of Group Securities, Inc. during the six months period ending Feb. 28, 1954, were: Abbott Laboratorie, Beatrice Foods, Federated Department Stores, General Mills, Johns-Manville, Kansas City Power & Light, Mathieson Chemical, Montana Power Co., and Washington Water Power.

Additional purchases of stocks already held continued the emphasis of the fund on stocks of well-established companies benefiting from the high level of consumer buying, although some increase in the holdings of deeply undervalued stocks in the agricultural equipment, building, steel, chemicals and electronics groups also were noted.

Stocks eliminated during the period were American Steel Foundries, Briggs Mfg., Consolidated Edison, du Pont, National Dairy Products, Niagara Mohawk Power, Shell Oil, and Texas Co.

SECOND HALF year changes in the investment holdings of Canadian Fund, Inc., managed by Calvin Bullock, include the purchase of 3,800 shares of Aluminium Ltd., 16,100 Bell Tel. of Canada, 8,300 British American Oil, 2,000 Canadian Pacific, 2,400 Consolidated Paper, 13,600 Seagram's, 5,000 Dome, 2,675 Industrial Acceptance, 7,100 Int. Nickel, 4,350 Powell River, 2,500 Traders Finance and 7,000 Hiram Walker.

Sales included 4,000 Asbestos Corp., 9,610 International Paper, 3,600 Marathon, 15,500 Socony-Vacuum, 5,300 Standard Oil of California and 5,500 Texas Co. Gulf Oil and Montana Power were eliminated.

CLOSED-END NEWS

THE REPORT of The Equity Corporation for the year ended Dec. 31, 1953 shows net assets at that date equivalent to $188.53 per share of $2 convertible preferred stock (preference in liquidation $50 per share and accumulated dividends), and $3.83 per share of common stock. Comparable figures for Sept. 30, 1953, were $178.38 per share of $2 convertible preferred stock and $3.55 per share of common stock.

PERSONAL PROGRESS

DONALD B. WOODWARD, Chairman of the Finance Committee and Director of Vick Chemical Co., has been elected a Director of Group Securities, Inc. Formerly Vice-President of the Mutual Life Insurance Company of New York in charge of research, Mr. Woodward is a trustee of the Lincoln Savings Bank, Brooklyn, a Trustee of the Brookings Institution of Washington, D. C. and a member of the Committee on Research in Finance of the National Bureau of Economic Research. He has served as consultant of the Federal Reserve Board, the U. S. Treasury Department, the State Department and the International Development Advisory Board.

Donald B. Woodward

EATON & HOWARD, Incorporated, announced that Andrew J. Lord, Jr., of Wellesley Hills, Mass., has become associated with that organization. Mr. Lord graduated from Princeton in 1947 following four years' service as a Captain in the Army Air Force. Since 1947 he has been associated with Lord Abbett & Co., New York—for the past four years as New England representative.

THE APPOINTMENT of Carel van Heukelom as the representative in Philadelphia of Television Shares Management Corporation, national distributors of Television-Electronics Fund and Hudson

Fund, was announced by William H. Cooley, President of Television Shares Management Corporation.

Mr van Heukelom is a former partner in Andre de Saint-Phalle & Co., and has been associated with leading banking houses in Amsterdam, London and Berlin. He is a native New Yorker and a graduate of Browning School. He completed his education in England and Switzerland. During World War II, he served with the United States Air Force and subsequently was appointed finance and liaison officer on the SHAFE Mission to the Netherlands.

W. EDWARD TAGUE is now associated with A. C. Allyn and Company, Incorporated, as wholesale representative for Concord Fund, Inc. Mr. Tague formerly was wholesale representative for Delaware Fund and Wisconsin Investment Company. A. C. Allyn and Company, Incorporated is underwriter for Concord Fund, Inc.

W LINTON NELSON, President of Delaware Fund, was selected for promotion to Rear Admiral, U. S. Navy Supply Corps, by a selection board convened in January by the Secretary of the Navy. Mr. Nelson is on inactive duty. The announcement by the Navy was made this week.

W. Linton Nelson

Mr. Nelson served in World War I among the first of the Navy's aviation cadets and in World War II as Commanding Officer of the Naval Supply Depot, Oran, Algeria. He holds the Legion of Merit and the Bronze Star Medal.

DAVID H. McALPIN and H. Danforth Starr have been elected to the board of directors of Broad Street Investing Corporation.

Mr. McAlpin is a limited partner in the New York investment brokerage firm of Clark, Dodge & Co. He is a Director of Tri-Continental Corporation, National Investors Corporation and Whitehall Fund, Inc. He is a Trustee of the Conservation Foundation and the New York Philharmonic Society and a Director of Union Theological Seminary. A graduate of Princeton University and Harvard Law School, Mr. McAlpin is a resident of Princeton, New Jersey.

Mr. Starr is Vice-President of Cerro de Pasco Corporation, which is engaged in the mining, smelting and refining of non-ferrous metals in Peru. He is also Vice-President and Director of Cerro de Pasco Railway Company. A graduate of Williams College and Harvard Graduate School of Business Administration, he resides in Greenwich, Conn.

THE ELECTION of Auguste Richard to the Board of Directors of Chemical Fund, Inc. was announced by F. Eberstadt, President of the Fund.

A former director of the Fund, Mr. Richard resigned in 1942 to become Chairman of the Army and Navy Munitions Board during the war. His earlier business connections included a partnership in the dry goods commission house of Lawrence & Co., Treasurer of Ipswich Mills, President of the Spool Cotton Company and Vice-President of Pacific Mills. He recently resigned as a Senior Vice-President and Director of F. Eberstadt & Co. Inc. He is a Director of Rio Blanco Copper Company, Lancaster Chemical Corporation and Treasurer and a Director of Manhattan Eye, Ear and Throat Hospital.

A New Technique for the Small Investor: Monthly Investment Plan

By DUDLEY F. CATES*

Kidder, Peabody & Co.
Members New York Stock Exchange

Commenting on efforts of Wall Street to encourage security purchases by small investors to fill the gap caused by gradual disappearance of wealthy stock buyers, Mr. Cates commends the Monthly Investment Plan of the New York Stock Exchange as adding a time factor in the investment picture, and thus reducing a chief risk inherent in the purchase of securities. Points out MIP does not encourage speculation. Compares mutual funds investment with MIP and finds little difference in their purchase expense to investor. Holds distinctive feature of MIP plan is that it enables investor to build up interest in a stock of his choice, while mutual fund relieves investor of problem of selecting securities.

Since World War II, Wall Street has become increasingly aware of the need to encourage investment by "small" investors to fill the gap left through the gradual disappearance of wealthy stock buyers.

Last month, the New York Stock Exchange announced the latest entry in the field of "small investor" Savings Plans, designed to widen the market of securities owners.

Dudley F. Cates

What the Exchange's MIP (Monthly Investment Plan) plan and the others like it are really doing is adding a new factor—the factor of TIME—to the investing picture. By enabling people to accumulate shares in particular stocks gradually, over a number of years, they are reducing one of the chief risks inherent in the purchase of securities. Mind you, I said "reducing," because the risks are still present, but their effect can be reduced if shares are bought at intervals of time instead of all at once. In financial jargon this is termed Dollar Cost Averaging. I'll come back to that in a few minutes.

In the past, a good many people have been disillusioned through unwise purchase of securities, even those of so-called Blue Chip quality. Few of these investors blamed themselves, which is quite natural. Instead, they blamed such abstract entities as "Wall Street," or "brokers," or "insiders," or just plain "they." In doing so they spread a distrust of legitimate investing among thousands of people who could and should own securities. It is an unpleasant commentary on our business that so few Americans own securities, even today, and that so many still think of the business of stocks and bonds as lying somewhere between speculation and gambling.

The Stock Exchange and its members firms have done much in recent years to correct the many misconceptions about Wall Street which still linger in the public mind. They have encouraged investment for its own rewards instead of for speculative profits, but until now there wasn't any "New Look" to persuade the public of this important change in attitude.

MIP Does Not Encourage Speculation

Now, finally, we can point to the Stock Exchange's MIP program with the reasonable certainty that **nobody** can accuse us of encouraging speculation. In fact, this program is the first tangible evidence that Wall Street is seeking the patronage of bona fide "little" investors and is willing to make a place for them in the financial scheme of things.

Well, enough of theorizing. By now I hope you may be sufficiently curious about the MIP plan to want to hear about it in more detail.

Stated briefly, the NYSE MIP plan enables anyone to accumulate the stock or stocks of one's choice by means of periodic purchases through a member firm. It is not an instalment plan, but rather a systematic purchase plan, offering a number of convenient features such as safe-keeping and reinvestment of dividends. The investor, through his broker, establishes an account with an "odd-lot" house which actually buys his shares and reinvests any dividends automatically, if desired, sending out periodic notices of the status of the account. Plans may be started with as little as $40 per month or even per quarter, for the purchase of a single stock. Any number of plans may be started, but if purchases are interrupted too frequently, or lapse for more than four scheduled periods, the odd-lot house may close out an account. When this happens the investor is notified that his Plan is being discontinued and that he will be sent a certificate for all of the stock held in the account.

Fractional shares are not issued and any fractional share credits are paid out in cash. Of course there are other details about the MIP plan which you may wish to know about.

* * *

The Mutual Funds and MIP

At the beginning of this talk, I spoke of the MIP plan as "the latest entry in the field of small investor savings plans." As most of you probably know, there is an alternative to direct investing known as the Mutual Fund. About six years ago, one of the Funds brought out a Plan by which its shares could be purchased regularly and the certificates held by a custodian bank for the investor's convenience. Also available was the privilege of reinvesting the quarterly dividends in additional shares without cost. The minimum initial purchase had to be at least $50, and subsequent purchases at least $25. No regular purchase schedule was required but the investor was asked to state what his intended schedule would be so that reminder notices could be sent to him at the proper time. This plan filled a great need, and was soon copied in one form or another by almost all of the leading Mutual Funds. Assuming that there are 700,000 different Mutual Fund owners in the U. S. today, I would estimate that perhaps 150,000 of them are accumulating additional shares in this manner.

Since the usual objection to Mutual Funds is said to be their cost, it is worthwhile noting that in the field of systematic purchase plans, at least, they cost no more than stocks listed on the Stock Exchange when bought in modest amounts each month or quarter. Let's take the example of an investor who decides to buy Mutual Fund shares at the rate of $100 per month. The sales charge of 8%, included in the offered price of the shares as quoted daily in the newspaper, covers both his purchase and his ultimate sale. (In actual fact, there is no cost involved in selling the Fund shares.) Next, take the example of an investor who decides to purchase Consolidated Edison Co. stock on the same basis. To begin with there is a minimum charge of $6 per transaction, or 6%. Then, there is the odd-lot differential, or 25c per share, or about ½ of 1%. This totals 6½% just to buy the shares. When it comes time to sell, there will be another 1½% of commission and odd-lot expense plus varying State and Federal taxes. The whole cost comes to about 8% or roughly equal to the cost of the Mutual Fund. I might add that if the amount of the monthly or quarterly purchase is below $100, the MIP plan works out to be a little more expensive than the average Fund, whereas if the monthly or quarterly purchase amount is more than $100, it is slightly less expensive.

Apart from actual cost, how do the two methods compare? Well first of all, they are quite different in fundamental purpose, and hence in the method by which that purpose is achieved.

The MIP plan enables the investor to build up an interest in the **stock of his choice.** That choice may be the result of quite a number of factors. For example, he may work for a given company and want to share in its prosperity. Or, he may be a specialist in a particular industry and feel that one or two companies in that industry have outstanding growth possibilities. Again, he may have consulted with a broker who recommended a particular company which he has studied carefully and come to like.

The Mutual Fund investor, on the other hand, is one who seeks to avoid the problems of securities' selection. He is willing to hire one or another of the investment management firms who supervise Mutual Funds by purchasing its stock and assuming his share of the management cost with thousands of other people on a proportionate basis. In this way, he becomes an owner, with all the others, of an investment portfolio consisting of many securities, professionally managed and designed to achieve some particular investment goal.

Oddly enough, it is possible to achieve a good deal of the effect of MIP in certain Mutual Funds, and conversely MIP can be used to gain much of what the Funds have to offer. How is this managed? Well, a number of Mutual Funds specialize in particular industries or types of securities, and it is possible to accumulate their shares under systematic plans. Conversely, a number of investment companies of the "closed-end" type can be purchased on the NYSE under the MIP plan. In effect, the MIP plan enables the investor to buy shares in a professionally managed portfolio of securities which is a very close counter-part of the Mutual Fund. There are certain differences, of course, including the very obvious one of share redemption. Closed-end investment companies neither issue new shares regularly nor do they guarantee to redeem their outstanding shares at full market worth, or asset value. Mutual Funds do both, which prevents their shares from being traded either at a premium or a discount from their real worth.

Risks of Investment Not Removed

Probably each of you is wondering if it would be wise to start an MIP plan, or possibly two or three, and thereby accumulate shares of your favorite stock. Generally speaking, I would say yes, but the real answer depends on your own particular circumstances. There is a wide difference in quality and degree of risk among common stocks including those listed on the New York Stock Exchange. Although the MIP plan makes it possible to buy shares on a Dollar Cost Averaging basis and thereby reduce **market** risks, it does not reduce the risks inherent in the company or industry which the investor has decided to buy. Stated another way, you might start a plan to purchase shares of stock X for the next five years because today's outlook appears quite favorable. Three years from now you might have a total investment of several thousand dollars in that stock at an average **cost** somewhat below the average **price** of all your purchases. This would result from buying more shares when the purchase price is low, and fewer shares when the purchase price is high. However, if at the end of three or four years the fortunes of your particular company suddenly took a change for the worse, and that change was reflected in the market price of the stock, your loss would be just as real whether you purchased the shares gradually or all at once.

In my view, at least, the problems of successful investing are a lot more real than they are apparent. To the general public, it looks quite easy to select stocks, find a broker to buy shares, maybe sell them again, and possibly repeat the process. Opening an MIP plan is even simpler on the face of it. The fact still remains that prudent selection is much more intricate than it appears to the outsider, so all I can suggest to you is to be extremely careful **how** you go about investing.

In conclusion, I should mention that neither the NYSE member firms nor the Mutual Funds could live on the income to be derived from the sale of periodic purchase plans alone. These plans were developed primarily as an extra service to investors. Even with 6% to 8% there is not much incentive for salesmen in Wall Street to seek out and develop clients for these plans. Nevertheless, it does help clients and salesmen to have them available on a realistic cost basis, and maybe someday the world of potential investors will wake up to what they are missing and come knocking at our doors. In the meantime, we will have to continue as best we can to knock on yours.

*A lecture by Mr. Cates in course "How to Make Investments," sponsored by the Greenwich, Y.M.C.A., in cooperation with the New York Stock Exchange, New York City, Feb. 25, 1954.

Andrew R. Richardson

Andrew R. Richardson, associated with Vilas & Hickey, New York City, for the past 25 years, passed away at his home Feb. 25 at the age of 52.

Hill Richards Adds

(Special to THE FINANCIAL CHRONICLE)

LOS ANGELES, Calif.—Robert D. Tucker has been added to the staff of Hill Richards & Co., 621 South Spring Street, members of the Los Angeles and San Francisco Stock Exchanges. Mr. Tucker was previously with E. F. Hutton & Co.

Joins Paine, Webber

(Special to THE FINANCIAL CHRONICLE)

LOS ANGELES, Calif. — Beatrice B. Phelps has joined the staff of Paine, Webber, Jackson & Curtis.

Continued from page 13

Does Govt. Insurance Develop Excessive Mortgage Credit?

which prevailed throughout the postwar period. The aid granted by the government may be considered a "subsidy" since the credit of the individual and of the collateral (the home) is supplemented by the credit of a governmental agency. This supplemental government credit, which is not costfree to the home purchaser, makes possible the lengthening of maturities of mortgages, reduces the annual carrying charge, and has been primarily responsible for the willingness of financial institutions to acquire such mortgages.

The Problem

Before considering the question whether government insurance develops excessive mortgage credit, the following questions have to be answered:

(1) Are there too many homes now in existence, and is there danger of an oversupply with its impact on prices, values, and hence on the mortgages?

(2) Is the supply of mortgages out of line with the savings of the people, and has the situation developed where funds were invested in mortgages when they could have been used more effectively in industry or in trade?

(3) Is the method of financing homes sound, or will it lead to difficulties later on?

(4) Can a secondary mortgage market be developed, thereby considerably increasing the liquidity of mortgages, without the use of government funds?

Are there too many homes and is there a danger of an oversupply? In his Housing Message dated Jan. 25, 1954, the President stated: "A high level of housing construction and vigorous community development are essential to the economic and social well-being of our country. It is therefore properly a concern of this government to insure that opportunities are provided every American family to acquire a good home." The President further states: "The Federal Government must provide aggressive and positive leadership. At the same time, actions and programs must be avoided that would make our citizens increasingly dependent upon the Federal Government to supply their housing needs." The President recognized the fact that there is still a shortage of housing for people in the lower-income groups, and to meet this situation he recommended "a new and experimental program under which the Federal Housing Administration would be authorized to insure long-term loans of modest amounts, with low initial payment, on both new and existing dwellings, for low-income families." In addition, the recommendation was made that slum clearance continue and that 35,000 units be erected in the next year. Still another recommendation was for modification of the FHA laws to enable that agency to insure mortgages on old homes to the same extent as on new homes. The Message of the President on housing points up the need for housing particularly among the lower-income groups. One can reach the conclusion, therefore, that there is no danger that the supply of homes has increased too rapidly or to a point where it could create adverse effects on prices and values of existing homes. This conclusion does not imply that real estate values will continue to increase indefinitely. Our economy is a dynamic one and is in a constant state of flux. Ups and downs in all values are to be expected, and this includes real estate.

Is the supply of mortgages out of line with the savings of the people? Mortgage debt outstanding in the United States on 1- to 4-family nonfarm properties increased sharply since the end of the war. The mortgage debt on such dwellings rose from $18.5 billion at the end of 1945 to $45.1 billion at the end of 1950 and to $65 billion at the end of 1953.

The sharp increase in mortgage debt and related building activity since the end of 1945 reflect the following developments:

(1) The almost complete stoppage of housing construction during the war. At the end of 1940, the amount of outstanding mortgage debt on 1- to 4-family nonfarm dwellings amounted to $17.3 billion. The increase of $1.2 billion during the war period (1940-1945) clearly shows that residential building activity was at a very low level.

(2) The sharp increase in prices of homes resulting from the increased cost of building materials and notably labor contributed in a significant degree to the increase in mortgage volume.

(3) The sharp increase in population and the large volume of family formations which occurred shortly after the war stimulated the demand for homes.

(4) The increase in the standard of living of most people, the rise in the birthrate, and the decentralization movement from congested cities to suburbs contributed materially to the increase in the number of home owners.

(5) The enhanced economic security of many families during the last 20 years also contributed to the desire of owning one's home. Once the economic security of the individual family has increased and it is relieved at least to some extent of the worries caused by sickness, unemployment, and old age, it is more willing to mortgage its future income in order to meet its present needs and requirements.

(6) The easy terms under which veterans could acquire homes also played an important role in this development. How great the role of government insurance was in the spreading of home ownership since the end of the war may be seen from the following table:

Composition of Mortgage Debt on 1- to 4-Family Nonfarm Homes
(In billion dollars)

		—Government Underwritten—			
	Total	Total	F.H.A. Insured	V.A. Guaranteed	Conventional
End of 1945	18.5	4.3	4.1	0.2	14.2
End of Sept. 1953	63.3	27.5	11.7	15.8	35.8

The above table indicates that were it not for the FHA and the VA home ownership in the United States would not have been as widespread as it is today.

The Supply of Funds

While the supply of mortgages and of corporate and tax-exempt securities increased, the supply of funds available for investment has kept pace. In part, to be sure, and particularly shortly after the war, the supply of funds seeking an outlet in mortgages and in corporate securities was increased considerably through the monetization of government bonds acquired during the war by institutional investors, notably life insurance companies.

Savings in the United States have undergone a considerable change in the last two decades. They have become increasingly contractual and negative in character although voluntary savings are substantial and rising as evidenced by deposits in mutual savings banks and time deposits of commercial banks as well as capital shares in savings and loan associations. The liquid savings in the hands of the people consisting of cash on hand, bank deposits in various forms, shares in savings and loan associations, government securities, and equities in trust funds at the end of 1953 were over $200 billion as compared with $154.5 billion at the end of 1945. The contractual savings in the form of life insurance, pensions, and profit-sharing funds have increased considerably, and the end is not as yet in sight. An additional factor in the supply of funds available for investment is in the form of negative savings consisting of amortization of mortgages as well as the operation of sinking funds on bonds and in many instances even on preferred stocks. If, moreover, consideration is given to the fact that American corporations are relying increasingly on internal resources notably retained earnings and depreciation reserves to finance their capital requirements, one is warranted in concluding that the supply of capital has kept pace with the demand for it. In fact, if the supply of mortgages had not been as large as it actually was since the end of the war, stimulated by the activities of the FHA and VA, the supply of funds seeking investment would have been greater than the demand, and money rates in all probability would have been lower than they are today.

There is a possibility that the future supply of savings may not be adequate to the demand if (a) the Treasury should operate with a large deficit and finance it through the sale of long-term bonds, or (b) if the debt management policy of the Treasury should be directed largely toward the conversion of matured or called obligations into long-term bonds suitable for investment by institutional investors other than commercial banks. So far as the budget deficit is concerned, nobody, of course, can tell how large it will be. It is, however, comforting to note that according to the Budget Message of the President, the Federal deficit on a cash basis during the present fiscal year will be only a little over $200 million, and for the fiscal year 1954-55 a surplus of over $100 million is envisaged. If these estimates materialize, the budget for all practical purposes will be balanced. To be sure, because of the uneven inflow of receipts, the Treasury is forced to borrow in the second half of the calendar year. However, the amounts involved are not large and will to a considerable extent be met through the sale of tax anticipation notes. As regards refunding operations, it is not likely that the Treasury will offer long-term securities in large amounts which will compete with mortgages and corporate borrowing.

One may therefore reach the second conclusion, that the supply of mortgages has not been excessive in relationship to savings.

Is Home Financing Unsound?

The next question that arises is whether it is economically sound for investors to buy mortgages on homes: (a) where no down-payment has been made, and (b) with a maturity of the mortgage of over 25 years. In this writer's opinion, it is unsound to make any mortgage loans where no down-payment is required. Every potential buyer of a home ought to demonstrate that he was able to save at least a modest amount for a down-payment. Moreover even a small down-payment indicates that the mortgagor has an equity and hence a financial interest in the property. Where the mortgagor makes no down-payment, his interest in the property may not be the same as when he has an equity in it.

An entirely different question is whether a mortgage with a maturity of over 25 years is sound. The answer will depend primarily on the insurance and the guaranty of the mortgage. It is quite evident that in the case of a conventional mortgage, a mortgagee may be unwilling to acquire a mortgage with a maturity of over 25 years. The situation, however, is entirely different where the mortgage is insured or guaranteed by a governmental agency. In this respect, the ultimate risk rests on the credit of the government; and in such mortgages, the main concern of the mortgagee is to see that the mortgage is properly serviced. Looked at from the point of view of safety, it should make no difference in the case of insured or guaranteed mortgages whether a mortgage matures in 15 or 30 years provided it is regularly amortized, thereby constantly increasing the equity of the owner. Since the government is committed to assist individuals, particularly those in the lower-income brackets, to acquire homes, and since the government is willing to place its credit behind mortgages with a maturity beyond 25 years, there is no reason why investors should not acquire such mortgages.

Marketability of FHA and VA Mortgages

The question here is not so much whether an FHA-insured or VA-guaranteed mortgage with a maturity of over 25 years is sound but rather whether ways and means can be found to make FHA-insured and VA-guaranteed mortgages more marketable and hence more liquid. Since the Administration is eager to eliminate FNMA and to convert it into a privately owned corporation, it is up to those who originate and buy mortgages to assist the government to achieve this aim. In many respects, one may say that FHA-insured and VA-guaranteed mortgages resemble the Public Housing bonds issued by the Public Housing Authorities. While these obligations are issued by local housing authorities all over the country, their credit standing rests on the Federal Government; and hence they are treated as riskless assets. The main problem is the creation of a system which will assure uniform servicing and the remittance of interest and amortization payments to one or several central institutions. Once this is achieved, the creation of a broad secondary market for FHA-insured and VA-guaranteed mortgages ought to be relatively simple.

Does government insurance develop excessive mortgage credit? It is now possible to answer the final question; namely, does government insurance develop excessive mortgage credit. From the above analysis, it is clear that the answer is in the negative. The insurance and guaranteeing of mortgages by governmental agencies has enabled the country to improve its housing facilities and has played an important role in the spread of home ownership. The agencies of the government guaranteeing and insuring mortgages have thus contributed materially to our high level of business activity. In spite of the fact that we have had a housing boom for a number of years, the need has not as yet been met. As was indicated by the President in his Housing Message, there is still a substantial need to improve housing facilities, particularly of people in the lower-income groups.

It is, however, of the utmost importance that the activities of the agencies engaged in insuring and in guaranteeing of home mortgages be coordinated with the credit policies of the Reserve authorities and the debt management policy of the Treasury. It is important that the government be given the power to raise or lower the rate of interest on mortgages as well as to extend or shorten the term of payment. Once the government has this power, it would be in a position to retard home building in periods when the economy is operating at capacity and to stimulate it when the economy is in a downward trend. Similarly, it is of importance that the debt management policy of the Treasury be coordinated with the housing policy of the government.

While it has been recognized both by the Democratic and Republican Administrations that it is the function of government to assist individuals and families in lower-income groups to acquire homes, it is quite evident that the responsibility of making insured and guaranteed mortgages marketable and hence liquid rests on private enterprise and particularly on the originators and buyers of mortgages. Once a way has been found to standardize and, if possible, to concentrate the servicing of FHA and VA mortgages, the rest would be a relatively simple problem.

Conclusion

The Government of the United States has realized that the providing of housing, particularly for people in the lower-income groups, is properly a government function. This problem in recent years was aggravated by the sharply increased cost of home construction so that the average individual in the lower-income group could not afford decent housing without a direct or indirect government subsidy. This subsidy has taken the form directly of public housing and indirectly of guaranteeing and insuring of mortgages. The guaranty and insurance of mortgages has removed the credit risks from such mortgages, has made possible the lengthening of mortgage maturities, and has attracted a great deal of capital from institutional investors. The guaranteeing and insuring of mortgages has not developed excessive mortgage credit. The amount of mortgages outstanding, while large, is not beyond the ability of the mortgagors to pay the carrying charges, nor is it out of line with the savings of the people. What is needed today is for those engaged in mortgage banking, as originators, distributors, and buyers of mortgages, to find ways and means of making these mortgages liquid without recourse to government credit. A way has to be found to standardize and concentrate the servicing of guaranteed and insured mortgages. Once this is achieved, there should be no basic difference between institutions engaged in the financing of homes and those engaged in the mass financing of the purchase of durable consumer goods. While the maturity of a mortgage obviously is much longer, so far as it rests on the credit of a governmental agency it is a riskless asset.

In the current period of a "rolling readjustment" and temporary reduction in the volume of employment, it is understandable that some apprehension may have developed over the expansion in mortgage credit. Such periods of readjustment should be considered normal in a dynamic economy and particularly when the economy has shifted from a war to a peace basis. However, as the readjustment corrects itself and the dynamism of the economy and increasing population, family formation, and employment opportunities reassert themselves, it will once again become apparent that the volume of mortgage debt is not excessive and that an increased volume of mortgage credit will be required to finance the nation's need for more and better housing.

Continued from page 16

Electronic Industry's Great Asset: Diversity of Markets

sets will be turned out in 1954. Increases in output thereafter should follow fairly closely the growth pattern of black and white, although production may increase faster in the early years reflecting greater know-how on the part of set makers. At best, it is likely to be 1956 before a true mass market for color is attained, and it goes without saying that black and white television will be the principal source of revenue for the set industry for several years to come.

Because of their complexity, color sets will certainly always cost more than black and white; they will probably have about 36 tubes against 20 in black and white sets, and the number of many of the other components used will be from two to two-and one-half times as great. Considerable development work will also have to be done to reduce the high cost of the picture tube, which now is six to eight times as expensive as a black and white tube. However, it is the general opinion in the industry that within three or four years the cost of color sets can be brought down to a range of 25 to 50% above that for black and white sets of comparable picture size. The consumer will then decide how much of the set business will be color and how much will be black and white. The important thing to remember is that both types of sets will be sold in quantity for as long as I can see into the future.

One of the best indications I know of that clor is not going to make black and white television obsolete is the fact that television itself has not yet supplanted radio and gives no signs of doing so. Today there are approximately 120 million radio sets in use, located in about 94% of the nation's homes and in more than three-quarters of the cars on the road. The number of radios is increasing each year, the ratio having risen from 1½ sets per household at the end of the war to about 2 per home at the present time. Demand for home sets of all types was down slightly last year, to 7.1 million from 7.7 million in 1952, but this was more than offset by a sharp increase in auto radios, to 5.2 million from 3.2 million.

Armament Program — Biggest Single Customer

Since the outbreak of hostilities in Korea, the biggest single customer of the electronics industry has been the armament program, and it is rather remarkable that the industry has been able to raise production of military electronic equipment ten-fold since 1950, while at the same time maintaining output of home radio and television sets at close to peak levels. In the last four fiscal years more than $12 billion of Government funds have been obligated for the purchase of electronic equipment, and the $2.8 billion actually spent in 1953 represented 60% of the peak military volume of World War II. At the same time, the diversity of electronic devices for both offensive and defensive uses is so much more marked than it was during the last war that there does not appear to be any likelihood of a significant decline in the industry's sales of military equipment. There should be a further rise in defense volume in 1954, and it is my firm conviction that this important segment of our business will remain at high levels for the foreseeable future, despite any reductions which may take place in total defense spending. The importance of electronics increases as both weapons and counter-weapons become more complex; for example, as higher and higher operating speeds reduce the time for control decision, automatic control through electronics becomes ever more essential. The extensive research facilities of our industry are especially well fitted to contribute to this development of advanced types of armaments.

Industrial Use of Electronics

Aside from the entertainment markets and the defense program, there is another important market for electronics in the field of industrial controls and computers for both scientific and business data-handling, as well as in new applications in the automobile and air transport industries and in home appliances. Products for these markets range in size from relatively simple devices such as room air-conditioners to highly complex computers. There is quite a problem of maintenance associated with the more advanced types, and further developments in semi-conductors, printed circuit techniques, and miniature sub-assemblies will be helpful in coping with this problem. Much has been heard about the automation of manufacturing processes and this too should ultimately be an important market, although it may take several decades to bring about the truly automatic factory.

No one knows for sure what the sales of the electronics industry to the industrial market are, but they almost certainly run into hundreds of millions. Although this segment of our business may not equal the dollar importance of radio - television and military equipment for a good many years, its rate of growth may well be the greatest of all.

Another growing market is that for replacement parts for the huge quantity of electronic devices, both civilian and military, which are now in operation. This is already a business of the order of a half billion dollars, and should increase substantially in size in the near future reflecting the large output of original equipment in the past three years.

To sum up the outlook for 1954, I shall be surprised if the electronics industry does not chalk up another increase in total sales. In view of the fact that there may still be some confusion in the minds of the public about color, there may be a drop of modest proportions in sales of TV sets, especially if unemployment continues to increase and consumer purchasing power is impaired. However, past experience has shown that the public will buy television and radio sets if they are competitively priced and well merchandised and recent surveys of consumer buying intentions indicate that many people consider 1954 a good year in which to buy durable goods. I am sure those in the industry who sell to the consumer will be prepared to meet this demand.

One of the chief sources of new TV sales should be the expansion of broadcasting facilities. New stations in the VHF and UHF bands have been coming on the air at the rate of one a day in recent months, and the number of stations in operation should increase from 356 at the end of 1953 to more than 500 by the end of 1954. Of the 27 million sets now in use, only about 3.6 million are equipped for UHF reception, and these in turn represent only one-third of the 11 million homes already within range of UHF stations. Furthermore, an additional 15 million homes within range of a television signal have no sets at all as yet. The replacement of existing sets should provide another important market, since only about 30% of the sets now in use are in the popular sizes larger than 17-inch, and 20% are probably over four years old.

The Immediate Outlook

Taking all these factors into account, I believe there should be a market for very close to 6 million sets at retail this year, and that this demand will justify the production of about 5.8 million black and white sets. We may not reach this rate in the early part of the year, but in my opinion demand will pick up once the limited availability and high cost of color becomes fully apparent, and I think we can look forward to production in the second half approximately equal to that in 1953.

In radio, there may be a drop in demand for auto sets to about 4 million units, but I believe there should be a market for a total of 11 million sets of all types. Thus, I look for about $1.3 billion worth of radio-TV business, about $3 billion worth of military business, and about $700 million worth of industrial equipment and replacement parts.

One of the greatest assets of the electronics industry is the diversity of its markets. We have only scratched the surface in many fields, some of which should some day surpass in size the whole present radio-TV business. Adding to these a continuing high level of defense work leads me to believe our industry will continue to be a strong growth industry for many years to come.

Beutel, O'Connell With J. G. White & Co.

J. G. White & Co., Inc., 37 Wall Street, New York City, announced that John G. Beutel and Edward J. O'Connell have joined the firm

John G. Beutel   Edw. J. O'Connell

in its United States Government bond department.

Mr. Beutel had been in the government bond department of Manufacturers Trust Company for the past 16 years, where he held the title of assistant secretary.

Mr. O'Connell joins J. G. White & Co. Inc. after three years as Assistant Vice-President at C. F. Childs & Co. Prior to this, he had been associated with D. W. Rich & Co. for 11 years, as a Vice-President and Director.

New McKelvy Branch

WARREN, Pa.—McKelvy & Co., members of the New York and Pittsburgh Stock Exchanges, have opened a branch office in the Warren Bank and Trust Building under the direction of Richard G. Smith.

CORRECTION

In the "Financial Chronicle" of Feb. 25 in reporting the formation of Arthur M. Krensky & Co., Inc., Alfred J. Bear was listed as a partner; this should have been Alfred J. Betar. In the same item it was also indicated that Mr. Krensky was a floor broker on the New York Stock Exchange; while holding an Exchange membership, Mr. Krensky states that he has never actually acted as a floor broker.

NEWS ABOUT BANKS AND BANKERS

CONSOLIDATIONS
NEW BRANCHES
NEW OFFICERS, ETC.
REVISED CAPITALIZATIONS

The National City Bank of New York's Forty-Sixth Street Branch opened on March 1. Located in the New York Central Building, on the west side of Park Avenue at 66 East 46th Street, this is National City's 70th branch in Greater New York.

Donald M. Blodget, Vice-President, who has worked in the midtown area since he began his banking career in 1919, is in charge. His official associates are: Frederick G. Sikes, Jr. and William G. Gridley, Assistant Vice-Presidents.

National City's complete worldwide banking facilities are available at Forty-Sixth Street Branch.

* * *

Mr. S. Allen Pippitt, of the **Chase National Bank, New York** has been appointed a Vice-President of the Bank, Percy J. Ebbott, President, announced.

At the same time the board of directors named the following new Assistant Cashiers: John E. Beebe, David C. Clarke and Robert B. Rivel, bond department; and Richard F. Hardy, public utilities department. Frederick G. Coqueron also was appointed to the official staff as petroleum analyst.

* * *

Appointment of Stephen F. Casko as a Vice-President of **Manufacturers Trust Company, New York** was announced on Feb. 26 by Horace C. Flanigan, President. Mr. Casko is associated with the Installment Loan Department of the Bank.

Mr. Casko was first employed by the old Chatham-Phenix National Bank and Trust Company in 1925 as a messenger, and came to Manufacturers Trust Company through the merger of that bank in 1932. He became a chief clerk in 1935 and a branch supervisor in 1938. In 1945 he was advanced to Assistant Comptroller and in 1953 was appointed an Assistant Vice-President and assigned to the Installment Loan Department.

He also is a member of Manufacturers Trust Company's "President's Committee on Employee Relations," which visits all offices and departments to talk with employees, learn their problems and survey the conditions under which they work.

* * *

William F. Graff has been named a Vice-President, **Irving Trust Company, New York** announced on Feb. 26. Formerly an Assistant Vice-President, he is associated with the international banking activities of the trust company. He joined the staff of the Irving in 1932.

* * *

Carl S. Heidenreich, President of the **Citizens Bank, Brooklyn, New York** died on February 25 at the age of 64.

* * *

The Banking Department of the State of New York gave approval on Feb. 24 to the **Hempstead Bank, Hempstead, N. Y.** to increase its common capital stock from $720,000, consisting of 72,000 shares of the par value of $10 per share to $800,000 consisting of 80,000 shares of the same par value.

* * *

George W. Hall, Vice-President in charge of the Oakland operations of **Crocker First National Bank, San Francisco, Calif.** brought his banking career to a close on Feb. 28, 1954, having reached retirement age.

He was succeeded by Charles Pratt, Jr., Vice-President, who has been with the bank for 45 years. No other personnel changes are contemplated.

Mr. Hall, who has been associated with Crocker First National for nearly 40 years, was named head of Oakland operations in January, 1947 when Crocker First merged with the Farmers and Merchants Savings Bank of Oakland. A native of Alameda, he started his banking career around 1906 with the Mercantile Trust Company of San Francisco. In 1915 he joined the First National Bank of San Francisco. From then until 1926, when the First National and Crocker National Bank merged to become the Crocker First National Bank of San Francisco, he served the bank in many capacities. He was made a Vice-President in 1941.

Charles Pratt, Jr., who succeeds Mr. Hall as head of the Oakland office of Crocker First National Bank, has been a Vice-President of the bank since 1946 he was in charge of the new business department in the San Francisco office previous to his transfer to Oakland six months ago.

* * *

Lynd Bridges, auditor of **Citizens National Bank, Riverside, Calif.** since 1944, has been elected by the Bank's Board of Directors to the newly created position of Comptroller, for the bank's system of 14 offices in Riverside and San Bernardino counties.

Mr. Bridges began with Citizens in 1934, as a messenger.

Milton Stratford has joined the staff of Citizens National Bank in the newly created position of real estate appraiser for the bank's system of 14 offices in Riverside and San Bernardino Counties.

* * *

Marking the completion of the first stage of its present building program, **The Farmers and Merchants National Bank of Los Angeles, Calif.** opened its new, enlarged Escrow Department on March 1.

These modernized facilities will be conveniently located on the ground floor, as will be the Mortgage Note Collection and Personnel Departments. Located at 116 West Fourth Street, just west of the Bank's Fourth Street entrance, the new quarters will double the present area of these departments.

The completion of these facilities is an important part in the expansion program of The Farmers and Merchants National Bank of Los Angeles. Presently under construction are new banking vaults, which will be the largest and most secure in the West available for private banking use.

* * *

American Trust Company, San Francisco, Calif., has absorbed the **First National Bank, Los Gatos, Calif.** effective Feb. 15.

Batchker, Eaton Co. Form'g

Batchker, Eaton & Co., members of the New York Stock Exchange, will be formed March 15 with offices at 120 Broadway, New York City. Partners will be Joel A. Batchker, member of the Exchange, Jerome A. Eaton, and Philip A. Batchker.

Eastman, Dillon to Admit W. S. Boothby

PHILADELPHIA, Pa. — Eastman, Dillon & Co., members of the New York Stock Exchange, on March 11 will admit Willard S. Boothby, Jr., to partnership. Mr. Boothby is manager of the municipal department of the Philadelphia office, 225 South Fifteenth Street.

Continued from page 4

The State of Trade and Industry

gered past their expectancy and continue to hold the overall market in check, "The Iron Age" points out.

Leading the bullish factors, the construction business is holding up well. Fairly open weather kept it from slipping as much as might have been expected during the winter. And prospects are now rated good. Structurals are in good demand, with wide flange beams still tight. Bridgework and superhighways are promising. Galvanized building materials have picked up sharply at mill level, although warehouses report them still sluggish.

Tinplate has been moving well ever since settlement of the recent strike against canmakers and demand in the Midwest is actually improving. Exports are down.

Oil country goods and linepipe continue in strong demand, and makers of consumer durables are setting a solid, if not spectacular, pace.

Probably too much was expected of the auto industry. February production was off 3% from January, and if March shows an improvement it will be only because of three more working days. The auto industry isn't going to produce its original March schedule, this trade weekly states.

Whatever bounce the market might have gotten from construction and consumer durables is being compensated by these depressing factors: (1) Bigger capacity, with assurance of plentiful supply; (2) inventory correction, followed by hand-to-mouth buying; (3) overall adjustment in economic activity, concludes "The Iron Age."

A seven and one-half year, postwar low monthly output for independent United States car manufacturers in February was reported on Friday last, by "Ward's Automotive Reports."

This agency counted 21,400 car completions for the producers, or 4.8% of industry production compared with 25,051 in January, or 5.5%. Not since May of 1946 (20,932 units) have so few assemblies been recorded.

The plunge climaxed moves started by the independents last October to adjust record dealer stocks to demand and in February found Packard and Studebaker closed one week and Hudson two weeks, with Kaiser and Willys only in token output. Another shutdown has been announced by Packard for the current week, "Ward's" said.

Industry-wide, United States car output dipped 3% and truck output 11% in February, production totaling 443,300 and 86,817 units, respectively. January netted 456,760 cars and 97,461 trucks, it noted.

Despite a combined 10,000-unit cutback at Pontiac and Chevrolet, General Motors Corp. car output increased to 225,000 units in February, or 50.8% of the country's total against 46.4% in January. Chrysler Corp. car volume in the month dipped to an estimated 50,300 from 65,901 and Ford Motor Co. to 146,600 from 154,031.

Reflecting the February decline, "Ward's" said, last week's United States assembly slipped to 135,130 cars and trucks from 136,682 the week before, the drop stemming from four-day operations at Dodge, DeSoto and Chrysler divisions of Chrysler Corp. Hudson, as planned, also halted its car manufacturing last week until March 2.

Ford division daily car assembly, meanwhile, continued to establish new three-year high levels the past week, while Chevrolet resumed a five-day week and Cadillac and Ford worked six days. Termination of a production problem also permitted higher Lincoln output, "Ward's" stated.

Steel Output Scheduled to Drop 3.1 Points

Reporting on the current steel situation, "Steel," the weekly magazine of metalworking, says it is true that March hasn't shaped up as well in the steel business as it had been expected to. Some substantial reductions are being made in steel plant operations, and the national steel production rate is down 2 points. However, it notes, those events are merely reflecting conditions that had their making weeks or months ago and sometimes people miss the turn in the trend of events because they are so overwhelmed with the present.

One steel company which believes its plant locations and its product mix make it an exceptionally good barometer, "Steel" points out, is just beginning to note a strengthening in demand for its products. Last year that company noticed a downturn before most people were aware a decline was in the making for the steel business. In the summer of 1949 when a recession was causing much consternation this company began to see an improvement in demand for its products and said, "We think the turn upward in the country's business conditions has come," reports this trade journal. The company had correctly sensed that the inventory correction was over. Some months later it was evident the company was right, says "Steel."

Evidence that steel sales, while down from their peak, have not gone to pot is the firmness of standard prices. Reflecting this firmness, "Steel's" price composite on finished steel is $113.91 per net ton for the tenth consecutive week.

Meanwhile, this trade publication declares, steel ingot production is reflecting the easing in demand for steel. In the week ended Feb. 28, output declined 2 points from the preceding week and registered 72.5% of capacity. This rate of output yields 1,730,000 net tons and brings February's total to approximately 7,060,000 tons, compared with January's 7,960,000.

The American Iron and Steel Institute announced that the operating rate of steel companies having 96.1% of the steelmaking capacity for the entire industry will be at an average of 70.5% of capacity for the week beginning March 1, 1954, equivalent to 1,682,000 tons of ingots and steel for castings, as against 1,756,000 tons and 73.6% (actual) a week ago.

The industry's ingot production rate for the weeks in 1954, is now based on annual capacity of 124,330,410 tons as of Jan. 1, 1954.

For the like week a month ago the rate was 74.4% and production 1,774,000 tons. A year ago the actual weekly production was placed at 2,262,000 tons or 100.3%. The operating rate is not comparable because capacity was lower than capacity in 1954. The percentage figures for last year are based on annual capacity of 117,547,470 tons as of Jan. 1, 1953.

Electric Output Drops Further the Past Week

The amount of electric energy distributed by the electric light and power industry for the week ended Saturday, Feb. 27, 1954, was estimated at 8,396,000,000 kwh., according to the Edison Electric Institute.

The current figure represents a decrease of 155,000,000 kwh. below the preceding week, but an increase of 326,000,000 kwh., or 4.0% over the comparable 1953 week and 980,000,000 kwh. over the like week in 1952.

Car Loadings Show Further Decline for Week and Year Ago

Loadings of revenue freight for the week ended Feb. 20, 1954, decreased 5,083 cars, or 0.8% below the preceding week, according to the Association of American Railroads.

Loadings totaled 618,623 cars, a decrease of 70,807 cars or 10.3% below the corresponding 1953 week, and a decrease of 64,928 cars or 9.5% below the corresponding 1952 week.

U. S. Auto Output Dips as a Result of Curtailed Operations at Chrysler Corp.

Automobile output for the latest week fell below a week ago stemming from 4-day operations at Dodge, DeSoto and Chrysler Divisions of Chrysler Corp., according to "Ward's Automotive Reports."

The industry, "Ward's" states, turned out an estimated 112,712 cars last week, compared with 113,659 (revised) in the previous week. A year ago the weekly production was 128,865.

Last week, the agency reported, there were 22,418 trucks made in this country, as against 23,023 (revised) in the previous week and 28,700 in the like 1953 week.

"Ward's" estimated Canadian plants turned out 9,394 cars and 2,250 trucks last week, against 9,346 cars and 2,229 trucks in the preceding week and 8,036 cars and 2,178 trucks in the comparable 1953 week.

Business Failures Again Register Slight Decline

Commercial and industrial failures dipped to 204 in the holiday-shortened week ended Feb. 25 from 215 in the preceding week, Dun & Bradstreet, Inc., states. Despite this decline, casualties remained above a year ago, when 178 occurred and 1952, when the toll was 163. Mortality continued below the prewar level, however, being down 24% from the 1939 total of 267.

Failures with liabilities of $5,000 or more fell slightly to 182 from 184 last week, but exceeded the 141 of this size in the similar week of 1953. A sharper decline brought small casualties, those involving liabilities under $5,000, down to 22 from 31 in the previous week and 37 a year ago. The number of businesses failing with liabilities in excess of $100,000 rose to 23 from 14 last week.

Wholesale Food Price Index Extends Upward Movement

A further sharp advance last week lifted the Dun & Bradstreet wholesale food price index for February 23 to $7.20, the highest level in almost three years, or since March 27, 1951 when it stood at $7.21. The current figure compares with $7.11 a week earlier, and marks a rise of 15.9% over the corresponding 1953 figure of $6.21.

The index represents the sum total of the price per pound of 31 foods in general use and its chief function is to show the general trend of food prices at the wholesale level.

Wholesale Commodity Index Holds to a Narrow Range

Movements in the Dun & Bradstreet daily wholesale commodity price index were insignificant in the past week with the index closing at 275.76 on February 23. This compared with 275.81 on February 16, and with 279.53 on the corresponding date a year ago.

Grain markets were unsettled with prices generally trending irregularly downward.

Wheat showed some firmness at the close following early weakness, reflecting unfavorable weather reports from the Southwest. Marketings of wheat in that area were moderate with high quality wheat in excellent demand.

Corn lacked buying support and prices worked mildly lower influenced by more liberal marketings by growers. Oats prices weakened in sympathy with other feed grains. Demand for malting barley was slow; offerings continued light with demand mostly for choice grades. Trading volume in grain and soybean futures on the Chicago Board of Trade increased sharply for the week. Daily average purchases of about 50,500,000 bushels compared with 39,200,000 the previous week, and 50,100,000 in the same week a year ago.

Roasted coffee prices continued to climb with predictions of further advances in the near future.

Trading in cocoa was more active than in recent weeks with prices rising to new high levels on buying influenced largely by a sharp upturn in the London market, together with a lack of offerings from producing areas. Warehouse stocks of cocoa rose to 83,499 bags, from 79,000 last week, and compared with 78,602 bags a year ago.

Domestic raw sugar trended higher, reflecting more active trade and commission house buying.

Spot cotton prices continued to trend mildly upward in narrow day-to-day fluctuations. Supporting factors included the gradual increasing tightness of free cotton supplies as the result of large CCC holdings and more numerous export inquiries. Sales of cotton in the 10 spot markets increased and totaled 148,500 bales, against 131,400 a week earlier, and compared with 170,200 two weeks previous. Consumption of the staple during the January period, according to the Bureau of the Census, averaged 33,941 bales per working day, as compared with 36,844 in January, 1953, and 32,219 bales per day in the December period.

Trade Volume Aided in Week by Warm Weather and Special Holiday Sales

Retail trade in the period ended on Wednesday of last week rose above both the year-ago and week-ago level. Warm weather and special Washington's Birthday bargain sales boosted sales volume appreciably.

In those areas where the holiday sales were inaugurated this year, merchants expressed satisfaction with the results and it appeared possible that the practice would be continued.

The total dollar volume of retail trade in the week was estimated by Dun & Bradstreet, Inc., to be from 1 to 5% above the comparable 1953 figures. Regional estimates varied from the year-ago comparatives by the following percentages: New England +4 to +8; East +2 to +6; South 0 to +4; Midwest and Northwest +1 to +5; Southwest —3 to +1 and Pacific Coast —2 to +2.

Purchases of furniture and appliances rose markedly above the previous week and were somewhat higher than in 1953 as a result of the additional shopping day. Although most stores only featured a few items at the reduced prices, volume on all appliances rose. Furniture purchases were somewhat higher although the volume of instalment purchases was somewhat below the preceding year.

New car sales remained below the extremely high early 1953 level and unofficial price shading was rather common.

Apparel volume was somewhat higher than a week ago and was close to the year-ago mark. Purchases of women's coats and suits were higher than in the preceding period. Increased demand was noted for dresses and Summer clothes.

The volume of wholesale trade in the majority of the nation's markets edged up slightly from the previous week but continued to be moderately below a year ago in the period ended on Wednesday of last week.

Many buyers continued to be price-conscious and were quite selective in their buying.

However, in contrast to recent weeks, more interest was displayed for items of new style and design.

Department store sales on a country-wide basis as taken from the Federal Reserve Board's index, for the week ended Feb. 20, 1954, increased 2% above the level of the preceding week. In the previous week, Feb. 13, 1954, a decrease of 1% was reported from that of the similar week in 1953. For the four weeks ended Feb. 20, 1954, a decline of 1% was reported. For the period *Jan. 1 to Feb. 20, 1954, department store sales registered a decrease of 1% below the corresponding period of 1953.

Retail trade in New York last week approximated the same level as the like week a year ago. There was, however, a wide variation in the estimates of individual merchants, reports state.

According to the Federal Reserve Board's index department store sales in New York City for the weekly period ended Feb. 20, 1954, registered an increase of 2% above the like period of last year. In the preceding week, Feb. 13, 1954, an increase of 2% was reported from that of the similar week of 1953, while for the four weeks ended Feb. 20, 1954, an increase of 2% was reported. For the period *Jan. 1 to Feb. 20, 1954, an increase of 1% was registered over that of the 1953 period.

*Comparison period begins with the Jan. 4-9 week in 1954 and with the Jan. 5-10 week in 1953.

Joins Mitchum, Tully

(Special to The Financial Chronicle)

LOS ANGELES, Calif.—Donald M. Fowler has become affiliated with Mitchum, Tully & Co., 650 South Spring Street, members of the Los Angeles Stock Exchange.

Indications of Current Business Activity

The following statistical tabulations cover production and other figures for the latest week or month available. Dates shown in first column are either for the week or month ended on that date, or, in cases of quotations, are as of that date:

		Latest Week	Previous Week	Month Ago	Year Ago
AMERICAN IRON AND STEEL INSTITUTE:					
Indicated steel operations (percent of capacity)	Mar. 7	§70.5	*73.6	74.4	100.3
Equivalent to—					
Steel ingots and castings (net tons)	Mar. 7	§1,682,000	*1,756,000	1,774,000	2,262,000
AMERICAN PETROLEUM INSTITUTE:					
Crude oil and condensate output—daily average (bbls. of 42 gallons each)	Feb. 20	6,319,650	6,321,700	6,292,300	6,542,950
Crude runs to stills—daily average (bbls.)	Feb. 20	‡7,156,000	7,030,000	7,018,000	7,079,000
Gasoline output (bbls.)	Feb. 20	24,585,000	24,421,000	24,241,000	24,123,000
Kerosene output (bbls.)	Feb. 20	3,120,000	2,843,000	2,753,000	3,065,000
Distillate fuel oil output (bbls.)	Feb. 20	10,982,000	10,683,000	10,564,000	10,871,000
Residual fuel oil output (bbls.)	Feb. 20	8,573,000	8,497,000	8,296,000	9,113,000
Stocks at refineries, bulk terminals, in transit, in pipe lines—					
Finished and unfinished gasoline (bbls.) at	Feb. 20	177,364,000	175,908,000	167,781,000	156,063,000
Kerosene (bbls.) at	Feb. 20	19,431,000	20,041,000	24,034,000	21,357,000
Distillate fuel oil (bbls.) at	Feb. 20	69,728,000	73,754,000	91,401,000	71,506,000
Residual fuel oil (bbls.) at	Feb. 20	46,215,000	*45,921,000	47,247,000	44,364,000
ASSOCIATION OF AMERICAN RAILROADS:					
Revenue freight loaded (number of cars)	Feb. 20	618,623	623,706	617,226	689,430
Revenue freight received from connections (no. of cars)	Feb. 20	602,299	603,350	592,947	662,461
CIVIL ENGINEERING CONSTRUCTION — ENGINEERING NEWS-RECORD:					
Total U. S. construction	Feb. 25	$225,724,000	$149,692,000	$171,054,000	$322,676,000
Private construction	Feb. 25	115,113,000	96,392,000	78,535,000	217,099,000
Public construction	Feb. 25	110,611,000	53,300,000	92,519,000	105,577,000
State and municipal	Feb. 25	78,683,000	48,505,000	63,389,000	87,240,000
Federal	Feb. 25	31,928,000	4,795,000	29,130,000	18,337,000
COAL OUTPUT (U. S. BUREAU OF MINES):					
Bituminous coal and lignite (tons)	Feb. 20	7,225,000	7,595,000	8,157,000	8,654,000
Pennsylvania anthracite (tons)	Feb. 20	583,000	590,000	711,000	632,000
DEPARTMENT STORE SALES INDEX—FEDERAL RESERVE SYSTEM—1947-49 AVERAGE = 100	Feb. 20	87	91	86	85
EDISON ELECTRIC INSTITUTE:					
Electric output (in 000 kwh.)	Feb. 27	8,396,000	8,551,000	8,855,000	8,070,000
FAILURES (COMMERCIAL AND INDUSTRIAL) — DUN & BRADSTREET, INC.	Feb. 25	204	215	233	178
IRON AGE COMPOSITE PRICES:					
Finished steel (per lb.)	Feb. 23	4.634c	4.634c	4.634c	4.376c
Pig iron (per gross ton)	Feb. 23	$56.59	$56.59	$56.59	$55.26
Scrap steel (per gross ton)	Feb. 23	$24.33	$25.33	$27.67	$44.00
METAL PRICES (E. & M. J. QUOTATIONS):					
Electrolytic copper—					
Domestic refinery at	Feb. 24	29.675c	29.700c	29.625c	24.200c
Export refinery at	Feb. 24	28.700c	29.150c	28.675c	35.150c
Straits tin (New York) at	Feb. 24	85.000c	85.250c	84.750c	121.500c
Lead (New York) at	Feb. 24	12.500c	13.000c	13.000c	13.500c
Lead (St. Louis) at	Feb. 24	12.300c	12.800c	12.800c	13.300c
Zinc (East St. Louis) at	Feb. 24	9.250c	9.250c	9.500c	11.500c
MOODY'S BOND PRICES DAILY AVERAGES:					
U. S. Government Bonds	Mar. 2	99.47	98.97	98.25	94.76
Average corporate	Mar. 2	109.60	109.24	107.98	107.80
Aaa	Mar. 2	115.04	114.66	113.12	111.07
Aa	Mar. 2	111.81	111.07	110.15	110.15
A	Mar. 2	109.24	108.88	107.80	107.09
Baa	Mar. 2	103.13	102.63	101.64	103.47
Railroad Group	Mar. 2	107.27	107.09	105.69	105.69
Public Utilities Group	Mar. 2	109.97	109.24	108.16	107.44
Industrials Group	Mar. 2	111.62	111.25	110.15	110.70
MOODY'S BOND YIELD DAILY AVERAGES:					
U. S. Government Bonds	Mar. 2	2.54	2.57	2.62	2.87
Average corporate	Mar. 2	3.19	3.21	3.28	3.29
Aaa	Mar. 2	2.90	2.92	3.00	3.11
Aa	Mar. 2	3.07	3.11	3.16	3.16
A	Mar. 2	3.21	3.23	3.29	3.33
Baa	Mar. 2	3.56	3.59	3.65	3.54
Railroad Group	Mar. 2	3.32	3.33	3.41	3.41
Public Utilities Group	Mar. 2	3.17	3.21	3.27	3.31
Industrials Group	Mar. 2	3.08	3.10	3.16	3.13
MOODY'S COMMODITY INDEX	Mar. 2	426.1	425.6	419.1	415.9
NATIONAL PAPERBOARD ASSOCIATION:					
Orders received (tons)	Feb. 20	217,650	216,205	199,153	198,987
Production (tons)	Feb. 20	232,388	237,063	243,978	238,981
Percentage of activity	Feb. 20	89	91	94	94
Unfilled orders (tons) at end of period	Feb. 20	340,049	355,213	342,885	471,623
OIL, PAINT AND DRUG REPORTER PRICE INDEX—1949 AVERAGE = 100	Feb. 26	107.25	107.17	107.35	107.88
STOCK TRANSACTIONS FOR ODD-LOT ACCOUNT OF ODD-LOT DEALERS AND SPECIALISTS ON N. Y. STOCK EXCHANGE — SECURITIES EXCHANGE COMMISSION:					
Odd-lot sales by dealers (customers' purchases)†—					
Number of shares	Feb. 13	1,035,184	963,701	764,041	716,030
Dollar value	Feb. 13	$39,984,135	$44,463,075	$34,789,631	$31,646,828
Odd-lot purchases by dealers (customers' sales)†—					
Number of shares—Total sales	Feb. 13	987,704	883,177	708,567	638,052
Customers' short sales	Feb. 13	6,894	8,831	8,143	3,178
Customers' other sales	Feb. 13	980,810	873,346	700,424	634,874
Dollar value	Feb. 13	$36,894,623	$38,117,821	$29,045,435	$26,121,196
Round-lot sales by dealers—					
Number of shares—Total sales	Feb. 13	294,440	257,590	208,970	166,580
Short sales	Feb. 13	------	------	------	------
Other sales	Feb. 13	294,440	257,590	208,970	166,580
Round-lot purchases by dealers—					
Number of shares	Feb. 13	280,820	350,560	316,610	256,400
TOTAL ROUND-LOT STOCK SALES ON THE N. Y. STOCK EXCHANGE AND ROUND-LOT STOCK TRANSACTIONS FOR ACCOUNT OF MEMBERS (SHARES):					
Total Round-lot sales—					
Short sales	Feb. 6	409,910	426,280	321,180	321,050
Other sales	Feb. 6	8,856,440	9,707,950	6,923,770	9,047,830
Total sales	Feb. 6	9,266,350	10,134,230	7,244,950	9,368,880
ROUND-LOT TRANSACTIONS FOR ACCOUNT OF MEMBERS, EXCEPT ODD-LOT DEALERS AND SPECIALISTS:					
Transactions of specialists in stocks in which registered—					
Total purchases	Feb. 6	964,860	999,330	708,790	865,440
Short sales	Feb. 6	201,680	220,510	150,240	191,280
Other sales	Feb. 6	751,420	820,280	808,430	756,390
Total sales	Feb. 6	953,100	1,040,790	958,670	947,670
Other transactions initiated on the floor—					
Total purchases	Feb. 6	246,040	297,000	201,770	173,430
Short sales	Feb. 6	18,900	22,900	13,200	16,300
Other sales	Feb. 6	218,840	299,810	262,730	217,840
Total sales	Feb. 6	237,740	322,710	275,930	234,140
Other transactions initiated off the floor—					
Total purchases	Feb. 6	344,887	361,384	299,245	305,023
Short sales	Feb. 6	54,520	38,670	32,000	55,850
Other sales	Feb. 6	383,607	423,600	378,694	374,647
Total sales	Feb. 6	438,127	462,270	410,694	430,497
Total round-lot transactions for account of members—					
Total purchases	Feb. 6	1,555,787	1,657,714	1,209,805	1,343,893
Short sales	Feb. 6	275,100	232,080	195,440	263,430
Other sales	Feb. 6	1,353,867	1,542,690	1,449,850	1,348,877
Total sales	Feb. 6	1,628,967	1,825,770	1,645,294	1,612,307
WHOLESALE PRICES, NEW SERIES — U. S. DEPT. OF LABOR — (1947-49 = 100):					
Commodity Group—					
All commodities	Feb. 23	110.5	110.5	110.9	109.7
Farm products	Feb. 23	98.1	98.0	98.9	98.2
Processed foods	Feb. 23	105.2	105.1	105.5	105.4
Meats	Feb. 23	93.3	92.3	94.9	97.3
All commodities other than farm and foods	Feb. 23	114.3	*114.4	114.5	113.1

*Revised figure. ‡Includes 519,000 barrels of foreign crude runs. §Based on new annual capacity of 124,330,410 tons as of Jan. 1, 1954, as against the Jan. 1, 1953 basis of 117,547,470 tons.
†Number of orders not reported since introduction of Monthly Investment Plan.

	Latest Month	Previous Month	Year Ago
BANK DEBITS—BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM—Month of December (in thousands)	$168,587,000	$141,115,000	$165,115,000
BUSINESS INCORPORATIONS (NEW) IN THE UNITED STATES—DUN & BRADSTREET, INC.—Month of January	9,543	8,915	9,543
BUSINESS INVENTORIES — DEPT. OF COMMERCE NEW SERIES—Month of December (millions of dollars):			
Manufacturing	$46,719	*$46,899	$44,190
Wholesale	11,680	*11,930	11,327
Retail	22,635	*22,437	21,592
Total	$81,034	*$81,266	$77,109
COMMERCIAL PAPER OUTSTANDING—FEDERAL RESERVE BANK OF NEW YORK—As of Jan. 31 (000's omitted)	$620,000	$552,000	$504,000
COTTON AND LINTERS — DEPT. OF COMMERCE—RUNNING BALES:			
Lint—Consumed months of January	678,827	757,152	902,674
In consuming establishments as of Jan. 31	1,736,445	1,681,272	1,736,184
In public storage as of Jan. 31	12,083,258	11,952,783	7,288,514
Linters—Consumed month of January	113,081	110,742	110,942
Stocks Jan. 31	1,401,712	1,380,137	1,048,509
Cotton spindles active as of Jan. 31	19,652,000	19,695,000	20,349,000
COTTON SPINNING (DEPT. OF COMMERCE):			
Spinning spindles in place on Jan. 30	22,920,000	22,940,000	23,082,000
Spinning spindles active on Jan. 30	19,652,000	19,695,000	20,314,000
Active spindle hours (000's omitted) Jan.	8,631,000	9,683,000	11,521,000
Active spindle hours per spindle in place Jan.	431.5	412.0	501.3
DEPARTMENT STORE SALES—SECOND FEDERAL RESERVE DISTRICT, FEDERAL RESERVE BANK OF N. Y. — 1947-1949 Average 100—Month of January:			
Sales (average monthly), unadjusted	79	182	81
Sales (average daily), unadjusted	101	101	100
Sales (average daily), seasonally adjusted	81	178	80
Stocks, unadjusted	98	104	*102
Stocks, seasonally adjusted	111	113	*115
LIFE INSURANCE—BENEFIT PAYMENTS TO POLICYHOLDERS — INSTITUTE OF LIFE INSURANCE—Month of December:			
Death benefits	$191,711,000	$152,387,000	$168,314,000
Matured endowments	49,345,000	39,862,000	40,498,000
Disability payments	9,495,000	8,717,000	9,244,000
Annuity payments	37,426,000	35,971,000	28,870,000
Surrender values	64,579,000	58,376,000	53,198,000
Policy dividends	128,668,000	56,837,000	117,278,000
Total	$481,224,000	$352,150,000	$417,402,000
LIFE INSURANCE PURCHASES — INSTITUTE OF LIFE INSURANCE — Month of Dec. (000's omitted):			
Ordinary	$2,185,000	$1,943,000	$1,948,000
Industrial	477,000	549,000	451,000
Group	1,105,000	550,000	1,061,000
Total	$3,767,000	$3,042,000	$3,460,000
MANUFACTURERS' INVENTORIES & SALES (DEPT. OF COMMERCE) NEW SERIES—Month of December (millions of dollars):			
Inventories—			
Durables	$26,791	*$26,975	$24,399
Nondurables	19,928	*19,924	19,791
Total	$46,719	*$46,899	$44,190
Sales	24,097	*24,304	24,706
MONEY IN CIRCULATION—TREASURY DEPT.—As of Dec. 31 (000's omitted)	$30,781,000	*$30,807,000	$30,433,000
NEW YORK STOCK EXCHANGE—As of Jan. 31 (000's omitted):			
Member firms carrying margin accounts—			
Total customers' net debit balances	$1,689,558	*$1,696,463	$1,345,031
Credit extended to customers	34,074	*31,019	30,790
Cash on hand and in banks in U. S.	310,857	*301,172	332,256
Total of customers' free credit balances	741,097	*712,792	731,781
Market value of listed shares	123,189,862	117,257,208	120,482,594
Market value of listed bonds	101,246,212	99,827,875	100,116,011
Member borrowings on U. S. Govt. issues	138,448	*233,342	61,981
Member borrowings on other collateral	1,124,536	*1,228,080	952,979
PERSONAL INCOME IN THE UNITED STATES (DEPARTMENT OF COMMERCE)—Month of December (in billions):			
Total personal income	$284.7	*$285.9	$280.6
Wage and salary receipts, total	196.4	*198.3	192.5
Total employer disbursements	192.6	*194.5	188.7
Commodity producing industries	85.9	*87.7	87.0
Distributing industries	52.8	*52.9	50.1
Service industries	24.2	24.1	22.6
Government	33.5	*33.6	32.8
Less employee contributions for social insurance	4.0	4.0	3.9
Other labor income	5.1	5.1	5.1
Proprietors and rental income	50.4	50.0	51.8
Personal interest income and dividends	22.5	*22.7	21.5
Total transfer payments	14.3	13.8	13.6
Total nonagricultural income	267.2	*269.0	261.6
PRICES RECEIVED BY FARMERS — INDEX NUMBER — U. S. DEPT. OF AGRICULTURE — September, 1909-July, 1951 = 100 —As of December 15:			
Unadjusted—			
All farm products	*254	249	*268
Crops	*238	234	*259
Food grain	230	229	247
Feed grain and hay	*205	*195	*226
Tobacco	427	433	428
Cotton	*260	*269	*269
Fruit	*237	*205	*214
Truck crops	*224	*218	*281
Oil-bearing crops	269	263	300
Livestock and products	269	263	*276
Meat animals	285	267	*284
Dairy products	*282	*268	*306
Poultry and eggs	*218	*224	221
TREASURY MARKET TRANSACTIONS IN DIRECT AND GUARANTEED SECURITIES OF U. S. A.—Month of January:			
Net sales	------	------	------
Net purchases	$6,957,500	$615,500	$24,581,000
UNITED STATES EXPORTS AND IMPORTS BUREAU OF CENSUS — Month of Dec. (000's omitted):			
Exports	$1,316,000	*$1,242,000	$1,390,000
Imports	911,000	*849,009	1,052,254

Continued from page 10

The Canadian Economy in 1954

of the efforts and investments of private individuals and companies who were prepared to work hard and to take risks.

This should not lead one to the conclusion, however, that the role of government has been unimportant during this period of unprecedented development. Indeed, the creation and maintenance under present-day conditions of an environment favorable to sound economic development within a free society is a problem of the greatest complexity. In many ways it is much more complex than that of running a regimented state.

Decisions on Canadian Price Control, Fiscal and Monetary Policies

All governments make mistakes and the Canadian Government is no exception. But I submit that on some of the main economic issues of our times, the government and Parliament of Canada have taken the right decisions—decisions which have had a determining effect on the development of the country. To illustrate, let me direct your attention to the issues of price control, fiscal and monetary policy, and trade policy.

We in Canada have been blessed with extremely good government and by Cabinets which have first and foremost been good businessmen and most patriotic Canadians. The Canadian Government made an outstanding success of price control during the World War II. When the war ended, the government proceeded to remove the controls in an orderly fashion, until within a relatively short time they were all gone. The steady removal of controls took courage, for there were many who advocated their retention for an indefinite period. Looking back, it can now be seen that the decision to remove controls when the war was over was a turning point. It clearly marked the course that Canada was prepared to follow—toward a vigorous, flexible economy, and away from a bureaucratic economy.

Three or four years ago, the advisability of introducing price controls had again to be considered. If all-out war had come at that time, I have no doubt that price controls would have been put into effect without the slightest hesitation. But that kind of war did not come and, fortunately, the pressure for price controls was resisted.

While direct price controls were not adopted, the Canadian Government has fully realized the importance of fighting inflation and of maintaining a high degree of confidence in the Canadian dollar. This it has striven to do by its fiscal, monetary and credit policies. These are often under attack. I suppose they always will be, because no one likes taxes and most people like cheap money and easy credit.

Now I am not going to suggest that every tax has been at the right level, or that monetary and credit measures were always just what was required. Furthermore, I have no quarrel with those who offer constructive criticism. What I do submit is that the vigorous policies followed by the government and supported by Parliament during recent years have contributed in no small measure to the creation of conditions favorable to healthy economic growth.

A good deal of capital has come into Canada in recent years to help in the development of our resources and our industries. That capital came because of the opportunities for profitable investment. It came because prospective investors had confidence in the financial integrity of my country and in the strength and stability of our currency.

Now I come to the major decision in the field of economic policy that has influenced Canadian development in recent years—that affecting trade. At the end of the war, a fundamental choice had to be made between what might be called a timid policy and a bold policy. The timid approach is that based on fear of competition. It counselled the taking of few chances, the preservation of existing markets rather than the development of new markets. The bold approach is that based on confidence in the ability of Canadians to meet competition and on the belief that Canada could grow and prosper only if she showed herself willing to trade with all parts of the free world.

Reducing Trade Barriers

Canada chose the bold approach. We entered at once into trade negotiations designed to reduce barriers to trade and we pledged ourselves to follow non-discriminatory trade practices under aegis of the General Agreement on Tariffs and Trade. Our foreign trade service was strengthened. Loans were extended to assist overseas countries that were prewar markets for Canadian products to get back on their feet after the war. Active steps were taken to encourage imports from countries which were experiencing difficulties in earning dollars. The Canadian International Trade Fair was established as an annual mart in Toronto, symbolizing Canada's desire to trade with the world.

During the whole period of our rapid expansion, there have been no increases in the Canadian tariff. It is also noteworthy that the trade restrictions introduced in 1947 to conserve our diminishing reserves of United States dollars were swept away as soon as the need for them had disappeared.

This bold approach has, I believe, paid handsome dividends. Canadian trade, as you know, has attained remarkably high levels and our goods are moving in volume into markets throughout the world. Without this thriving trade, the pace of our economic development would have been slower, for in spite of the growing domestic market, Canada is about as dependent upon external outlets as she has ever been.

There have, of course, been changes in the pattern of our trade. That was inevitable. Prewar, the United Kingdom was our biggest market; now the United States buys nearly four times as much as Britain. The reason for this great change is a simple one. The United States needs and is able to pay for many of the products we now have for sale. Where else in the world could Canadians find a cash market for over $2 billion worth of goods?

Let me summarize what I have been saying about Canada's recent growth and prosperity. Both are based on the possession of rich reserves and upon favorable opportunities to develop them. Both are based, no less, I submit, upon the fact that there has been in Canada an environment in which enterprise and intiative have had a chance to show what they could accomplish for the common good.

(2) The Existing Economic Situation in the Spring of 1954.

Much is printed in United States periodicals and the daily press with regard to Canada. At the present time, there is more trade between the United States and Canada than any two countries in the world and new figures just published from Ottawa indicate that our Canadian exports to the United States in the calendar year 1953 amounted to a figure in excess of $2,400,000,000. Similar Canadian imports from the United States amounted to more than $3,200,000,000, leaving a deficit balance of $766,000,000 of Canadian exports over Canadian imports. Despite this enormous adverse balance, the exchange situation between United States and Canadian dollars is approximately a $3\frac{1}{2}\%$ premium on Canadian funds. Our tourist traffic, vis-a-vis the United States, is practically in balance. It is, therefore, quite apparent that United States funds are again entering Canada in very considerable volume as one factor in a somewhat complex exchange situation which all bankers present here to night will understand. Retail sales, bank clearings, and railroad car loadings remain at a high level and despite the fact that we in Canada can be affected immediately by any change in United States economic and commercial conditions, nevertheless at the present time the economy in Canada is sound. If I were asked for the two main reasons as to the present extreme premium on Canadian dollars, I would give the following:

(a) The continued inflow of United States capital for investment in Candian development, much of which comes from this great United States Midwest.

(b) The increasing tendency on the part of many United States parent companies to reinvest in Canada the profits from Canadian subsidiaries.

With regard to capital investment during the year 1954, a recent survey of Canadian business which has just been completed indicates that this current year will be 3% greater than 1953, which was itself an all-time record representing approximately 23% of the gross national product of Canada. Also, in the investment field, the Canadian economy will be reinforced by two large projects. I am permitted to quote the Right Hon. C. D. Howe, our famous Minister of Trade and Commerce and Minister of Defense Production, that of these two projects, one is the St. Lawrence Waterway Project, which is fully expected to be under construction before the end of the year. The other is the longest pipeline that has ever been built in the world, namely, the gas pipeline from Alberta to Ontario and Quebec. It may therefore be anticipated that a high level of investment in Canada will continue not only in 1954, but well into the future.

(3) The Future of Canada

I have said nothing tonight with regard to United States tariff policies. In my country, your trade decisions in 1954 will be regarded as being of crucial importance. We and other friendly countries have a great interest in the economic effects of your policy. We hope it will serve to strengthen the collective and individual security of all of us in these troubled times. And it goes without saying that the masters of the Kremlin are also interested in what you may decide to do. If the present economic divisions within the free world are to continue, only the Communists will benefit. It is not for me to make any comments on the recommendations of the Commission headed by Mr. Clarence Randall. But may I say that we Canadians firmly believe that you will find that steps towards an expansion of trade will serve your national interests.

Among the countries of the free world, Canada has, as you know, a special association with the nations of the Commonwealth. Mr. Abbott, our Minister of Finance, recently joined with his opposite numbers from other Commonwealth countries in the economic conference in Sydney, Australia. This meeting was essentially an opportunity to review developments in the economic field since the Commonwealth Economic Conference of December, 1952. You may recall that at that previous conference, Commonwealth countries of the sterling area affirmed their determination to pursue policies which would contribute towards the objective of convertibility for sterling. This objective is of great importance for world trade inasmuch as even now sterling finances about 40% of the total trade of the world. At Sydney, these sterling countries reviewed the considerable progress which had been achieved and considered how further progress might be made. The ultimate decision for convertibility must, of course, rest with those countries. But an important element in their assessment of the situation must inevitably be whether the United States, as the major trading country in the world, is prepared to pursue policies appropriate to its position.

Working towards convertibility of currencies and an expansion of world trade is a joint affair in which all countries must play a part. The risks, in some respects, are not inconsiderable. But the prize is great and, at the present time, nothing would contribute further to achieving the common goals of our two countries and of the free world.

I believe that Canada's future progress depends to an important degree upon the retention of a flexible, adaptable economy. While most of us are convinced that the best is yet to come, as far as Canada is concerned, progress will not be automatic. The world is not being run to suit Canadians. We must be ready to adapt ourselves to changing circumstances.

This is particularly true in the field of trade. The bold trade policies followed by the government and the vigorous efforts made by Canadian exporters to sell Canadian goods abroad have produced exceedingly good results. But there is no Canadian, I am sure, who is satisfied that the trade of Canada could not be improved.

As far as the government is concerned, efforts to enlarge trade opportunities will be pushed with the utmost vigor. We believe that further reductions in trade barriers between countries would be in the general interest and we are ready to take part in negotiations to that end.

There is no magic formula or simple technical device by which these objectives can be achieved, and we should always bear in mind that the decisions to remove trade restrictions and to restore convertibility, when they are made, will be made not by us, but rather by the governments of other countries. The Canadian dollar is fully convertible and we do not now impose quantitative restrictions on trade with any part of the free world.

What does the future hold for Canada? Is the period of rapid expansion drawing to an end? What would happen to Canada if there were a recession in the U. S.?

Quite frankly, gentlemen, I do not know the answers to these questions. There are eminent economists here who could probably make more accurate predictions than I can. The future will rest upon discoveries and developments which will enable Canada to compete for an increasing share of Canadian and world demands, particularly for such basic products as oil, petro-chemicals, iron ore, aluminum, uranium, nickel and so forth. That is one reason why the growth of Canada has been so steady in postwar years, and why Canada managed to avoid the sharp recession that took place in the U. S. in 1949.

We are still in the midst of this basic development. Enough is known of the plans of the manufacturing, utilities and mining sectors of industry to support the view that total capital expenditure will continue at a high level in Canada for several years to come.

Looking further ahead, I am equally confident that Canada will continue to grow and expand. For Canada today is a strategic supplier of many of the commodities needed in the free world, and as standards of living of the peoples of the free world rise, the demands on Canadian resources are bound to grow.

It would be bromidic, if it were not so intensely and vividly true, to state that nowhere in the world is there a happier state of affairs in international relations than the conditions of mutual confidence existing between our two great countries. Indeed, the very word "international" when applied to Canadian-United States relations, has an air of unreality—a somewhat ponderous and pompous sound. I know it will seem to you, as it does to me, much closer to the subtle realities of the situation to speak of the spiritual family relationship between folks who have a common language, a common cultural heritage, common standards of decency and good neighborliness; coupled with a common political psychology based on the same rules of democratic respect for the rights of one's fellow men in the pursuit of life, liberty and happiness.

All of which means that our good relationship rests on comprehension and tolerance, and these are not qualities with which people are generally automatically endowed. It is expressed through myriad relationships and intermingling, as well as particularly close relationships between our two governments.

Suburban Electric Bonds Offered

Halsey, Stuart & Co. Inc. is offering today (March 4) $4,000,000 of Suburban Electric Co. first mortgage bonds, series A, $3\frac{1}{8}\%$, due March 1, 1984, at 102.46% and accrued interest, to yield 3%. Award of the issue was won by the underwriter at competitive sale yesterday on a bid of 101.80%.

Net proceeds from the sale of the bonds will be applied by the company first to the payment of $3,800,000 of short-term indebtedness incurred for property additions. The balance will be used to pay for construction or to reimburse the company treasury for construction expenditures.

The bonds will be subject to redemption at general redemption prices ranging from 105.46% to par, and at special redemption prices ranging from 102.47% to par, plus accrued interest in each case.

Suburban Electric Co. is engaged principally in purchasing and selling electricity. Electric service is provided in Everett, Malden, Melrose, Revere and Winthrop, Mass. in a suburban industrial and residential area of 29 square miles within 10 miles of Boston having an aggregate population of about 255,000. Electric appliances are also sold. The company had total gross operating revenues of $8,392,101 and net income of $776,117, for the 12 months ended Oct. 31, 1953.

Joins Schwabacher & Co.

(Special to THE FINANCIAL CHRONICLE)

SAN FRANCISCO, Cal.—Clyde M. Monaghan has become associated with Schwabacher & Co., 600 Market Street, members of the New York and San Francisco Stock Exchanges. Mr. Monaghan was formerly a partner in Management Investment Programs and prior thereto was with E. F. Hutton & Co.

Our Reporter's Report

The investment market, both new issue and seasoned bonds, has been crowding on sail like a racing schooner through the past several months. And this week the movement passed something of a milestone when a Double A rated public utility bond, with a 35-year maturity was brought to market on a 2.90% yield basis.

The progressive scaling - down of yields being offered on new issues naturally, in combination with the steady tapering off of yields in the open market for governments and high-grade corporates, served to clear recent backward issues from the shelves of syndicates and dealers.

But with both sections of the market having been threshing ahead persistently over a period of weeks it was to be expected that somewhere along the line institutional buyers would find themselves disinclined to follow prices upward.

That appeared to be the case at mid-week and with demand subsiding the markets showed a tendency to simmer down with some consequent shading of the high prices set on Monday's rising trend.

Meantime, there appeared to be more disposition to lean back and await the Treasury's announcement of its intentions in the way of new financing, now anticipated within the course of the next week. There was less inclination to look for a long-term issue at this time, with a 10-12-year perhaps 2½% bond, now expected.

Measure of Change

Since all things are pretty much relative in the investment market what has happened between last mid-December, and this week in the field of housing bonds provides a measure of the change that has taken place.

Last December an aggregate of 29 housing issues, involving a total of $121,220,000 face amount, with coupons ranging from 2⅜ to 2¾% were bid in by banking firms at an average net interest cost to the issuers of 2.741%.

This week a total of 17 separate issues for an aggregate of $119,-000,000 with some bonds running to 40-year maturities, were taken at a Public Housing Authority auction, at an average interest cost of 2.338%, a drop of slightly better than 40 bases points in the interval.

RFC's B & O Bonds

The biggest block of railroad bonds in a considerable period is destined to reach market after mid-month if things work out as planned and the Reconstruction Finance Corp., now in liquidation, disposes of its Baltimore & Ohio collateral trust bonds.

The Federal agency holds $65,-000,000 of this 4% issue which is due to mature Jan. 1, 1965. It has been a bone of much contention over the years.

Unless there is a change in the date set for opening of bids, March 15, bankers may find themselves coming to town on what has come to be an off-day in Wall Street. March 15 turns out to be a Saturday and it will be something of a novelty to have the boys bidding for an issue at the week-end.

Big Stock Offerings

The week's new issue turnover was lifted substantially by marketing of a total of 900,000 shares of junior equities for two Pacific Coast Utility companies.

Southern California Edison Co.'s 600,000 share block priced at $40.25 was reported moving, but slowed down somewhat by the requirements set by the California Commission as a basis for permitting a negotiated deal.

It was specified that, in the circumstances, California demand must first be satisfied, thus giving dealers in that region first call on the stock, even though a brisk demand was reported outside that State and particularly in the eastern areas.

Southern California Edison Stock Offered

A nationwide group of underwriters managed jointly by the First Boston Corp. and Dean Witter & Co. on March 2 offered to the public 600,000 shares of Southern California Edison Co. common stock ($25 par value) at $40.25 per share.

Proceeds from sale of the stock will be used by the company to repay approximately $20,000,000 in bank loans incurred for construction purposes and the balance for its continuing construction program.

Present plans call for expenditure during the next two years of a total of $124,779,000. Since 1946, the company has spent $491,-699,000 on new additions and extentions. The major items in the current program are completion of a new 156,000 kilowatt electric generating unit in a new plant adjoining the present one at Redondo Beach, and another unit of similar capacity at El Segundo station. The program also includes the completion of a dam creating the new Vermillion Valley Reservoir, and substantial additions to the company's transmission and distribution lines and substations. Of the total estimated cost of the 1954-55 project, about $51,309,000 will come from internal sources, and $73,470,000 from sale of additional securities, including today's issue.

The company provides electricity to 81 cities and surrounding rural areas in the region around Los Angeles and in western Tulare County. The cities served include Long Beach, Santa Monica, and Santa Barbara. Dividends have been paid by the company on its common stock every year since it was incorporated in 1909, and amount currently to $2.00 a year.

Operating revenue in 1953 came to $140,473,090, and net income, after preferred dividends, to $16,-716,871 or $2.64 per common share.

California Oregon Power Stock Offered

A nationwide syndicate jointly headed by Blyth & Co., Inc., and The First Boston Corp., on March 2 offered publicly 300,000 shares of common stock of The California Oregon Power Co. at a price of $26.50 per share.

Proceeds from the sale of the common stock, together with the proceeds from the proposed sale of $10,000,000 of first mortgage bonds, series due March 1, 1984, which the company expects to offer at competitive bidding later this month, will be used to partly refund outstanding bank loans totaling $21,000,000.

The California Oregon Power Company is an operating public utility incorporated under the laws of the State of California, which furnishes electric services at retail to 72 communities and adjacent rural areas in Oregon and California, with a total population estimated at 229,000.

With Shearson, Hammill

(Special to THE FINANCIAL CHRONICLE)

LOS ANGELES, Calif.—Francis R. O'Neil has become connected with Shearson, Hammill & Co., 520 South Grand Avenue.

Calm and Cheerful!

"In our last Annual Report, it was suggested that industrial plant and equipment had been produced, or were being produced, that should prove adequate not only to sustain an expanded defense effort, if necessary, but also rising standards of living. The achievements of our national economy during 1953 were such as to confound alike, pessimists at home and enemies abroad. Without artificial stimulus from inflation, additions to productive capacity and to community capital in the form of new construction surpassed any previous level. Production for everyday consumption and the living standards of our people were the highest ever attained by any nation in the world's history. Moreover, a large share of total output was devoted to providing national security. Americans may not only take pride in such a record; from it they may also derive abundant confidence in the future. To be sure, there is currently some evidence of adjustment associated with progress towards a more efficient peace-defense economy; but healthy growth so apparent on all sides is adequate assurance that it may be held to minor proportions."—John Hancock Mutual Life Insurance Company.

A little calm cheerfulness will hardly do any harm just now.

Blyth-Phelps, Fenn-Lehman Group Awarded $107,500,000 Fed. Housing Authority Bonds

A nationwide investment-dealer group headed by Blyth & Co., Inc.; Phelps, Fenn & Co. and Lehman Brothers as senior managers submitted winning bids for $107,500,-000 of the $119,000,000 new Federal Housing Authority bonds offered at competitive sale on Mar. 2.

Associate managers of the group are: Goldman, Sachs & Co.; Harriman, Ripley & Co., Incorporated; Smith, Barney & Co.; Shields & Company; The First Boston Corporation; and R. W. Pressprich & Co.

The entire group was composed of more than 180 investment firms.

The group's bids named interest rates of 2¼%, 2⅜% and 2½% for bonds maturing 1955 to 1995, setting a net interest cost of 2.36%.

The bonds, which are the obligations of 15 local housing authorities, including one in the Territory of Hawaii and one in Puerto Rico, are being reoffered for public sale at prices scaled to yield from .80% to 2.65%.

This marks the ninth big sale of bonds during the last 2½ years to finance slum clearance and low rent housing under the United States Public Housing Act of 1937, as amended. The investment-dealer group which was the successful bidder for the bonds now being offered has purchased approximately $945,000,000 or more than 75% of the total of $1,247,-689,000 Federal Housing bonds issued to date under this program.

The new bonds are callable 10 years from their date, at the option of the issuer, at 104% if redeemed not later than 15 years from their date, and at decreasing premiums if redeemed thereafter.

Interest on the bonds is exempt from all Federal income taxes and is generally exempt from local taxes in the states or territories of the issuer. Although the bonds are obligations of the issuing authorities, payment of the principal and interest is provided by annual contributions by the U. S. Government through the Public Housing Administration.

Among the larger individual issues for which the syndicate was the successful bidder are:

$24,740,000	Detroit, Mich.
24,570,000	New York City.
12,420,000	Chicago, Ill.
8,895,000	Camden, N. J.
5,775,000	Territory of Hawaii.
5,605,000	Paterson, N. J.

In addition to the managers major participants in the underwriting include: Bear, Stearns & Co.; Drexel & Co.; Eastman, Dillon & Co.; Equitable Securities Corporation; Merrill Lynch, Pierce, Fenner & Beane; Stone & Webster Securities Corporation; Union Securities Corporation; and White, Weld & Co.

Other large underwriting participants included: A. C. Allyn & Company, Incorporated; Alex. Brown & Sons; Coffin & Burr, Incorporated; Estabrook & Co.; Ira Haupt & Co.; Hornblower & Weeks; Lee Higginson Corporation; F. S. Moseley & Co.; Paine, Webber, Jackson & Curtis; Reynolds & Co.; L. F. Rothschild & Co.; Schoellkopf, Hutton & Pomeroy, Inc.

Houston Lighting & Power Bonds Offered

Halsey, Stuart & Co. Inc. headed a syndicate which offered on March 2 $30,000,000 of Houston Lighting & Power Co. first mortgage bonds, 3% series, due March 1, 1989, at 102.189% and accrued interest, to yield 2.90%. Award of the issue was won by the group at competitive sale on March 1 on a bid of 101.529999%.

Net proceeds from the financing will be added to the company's general funds and will be used to finance the extensive construction program. The company's entire construction program is estimated to entail expenditures of about $40,300,000 in 1954; $29,100,-000 in 1955, and $17,800,000 in 1956. Financing of the program for the years 1954-1956 will require approximately $20,000,000 of additional new money. The remainder of the cost of such program to be defrayed from cash accumulated from retained earnings and from depreciation and other reserves.

The bonds will be redeemable at general redemption prices ranging from 105.19% to par, and at special redemption prices ranging from 102.19% to par, plus accrued interest in each case.

Houston Lighting & Power Co., is engaged principally in the generation, transmission, distribution and sale of electric energy. The company serves an area in the Texas Gulf Coast region, estimated at approximately 5,600 square miles, in which are located Houston, Galveston and 145 smaller cities, villages and communities. Population of the territory served is estimated at 1,225,-000.

The company for 1953 had operating revenues of $53,128,376 and net income of $10,311,738. Giving effect to the current financing, outstanding capitalization of the company will consist of $115,000,000 of long-term debt; 97,397 shares of $4 preferred stock and 5,281,790 shares of common stock.

Halsey, Stuart Group Offer Equip. Trust Ctfs.

Halsey, Stuart & Co. Inc. and associates are offering today (March 4) $3,000,000 of Missouri Pacific RR. series XX 2¾% serial equipment trust certificates and $1,845,000 of St. Louis, Brownsville & Mexico Ry. series FF 2¾% equipment trust certificates, both issues maturing annually March 15, 1955 to 1969, inclusive. The certificates are priced to yield from 1.60% to .95%, according to maturity.

The Missouri Pacific issue is to be secured by the following new standard-gauge railroad equipment estimated to cost $3,874,180; 24 diesel-electric road switching locomotives.

The St. Louis, Brownsville & Texas Ry. issue is to be secured by the following new standard-gauge railroad equipment estimated to cost $2,317,977; 9 diesel-electric road switching locomotives and 125 all-steel, 50-ton box cars.

Issuance of the certificates is subject to the authorization of the Interstate Commerce Commission.

Associated in both offerings are R. W. Pressprich & Co.; L. F. Rothschild & Co.; Freeman & Co.; McMaster Hutchinson & Co., and Wm. E. Pollock & Co., Inc.

Penn-Dixie Cement Stock at $35.50 a Sh.

Penn-Dixie Cement Corp. is offering holders of its capital stock rights to subscribe to an additional 120,427 shares of capital stock at $35.50 per share on the basis of one share for each five shares held at the close of business on Feb. 26, 1954. The subscription offer will expire at 3.30 p.m. EST on March 15, 1954.

An underwriting group headed by Merrill Lynch, Pierce, Fenner & Beane will purchase any unsubscribed shares.

Net proceeds from the sale of these shares will be added to corporate funds and will be available for general corporate purposes. The corporation has been considering the possibility of expansion through the acquisition of additional production facilities. It is also considering the advisibility of pre-payment in whole or part of its term bank loans presently outstanding in the amount of $2,100,000, due 1955-57. In addition, capital outlays will be required periodically in the continuous program of plant maintenance and improvement.

Penn-Dixie Cement Corp. engages in the business of manufacturing, preparing for market, selling and distributing Portland cement and mortar cement. The company has eight plants located in Georgia, Iowa, Pennsylvania and Tennessee, with a total annual capacity of 11,316,000 barrels.

Shirley Baker With Irving Lundborg Co.

(Special to THE FINANCIAL CHRONICLE)

SAN FRANCISCO, Calif. — Shirley H. Baker has become associated with Irving Lundborg & Co., 310 Sansome Street, members of the New York and San Francisco Stock Exchanges. Mr. Baker was in the past a partner in Heller, Bruce & Co.

Securities Now in Registration

★ INDICATES ADDITIONS SINCE PREVIOUS ISSUE
• ITEMS REVISED

★ Aircraft Brake Co., Carson City, Nev.
Feb. 25 (letter of notification) 17,257 shares of common stock (par $1). **Price**—$3.50 per share. **Proceeds**—For experimental engineering, operating expenses, retirement of notes and for working capital. **Office**—42 Spear Street, Carson City, Nev. Name of company to be changed to Catton Disc Brake Co. **Underwriter**—None.

Alabama Power Co. (3/16)
Feb. 17 filed $17,000,000 of first mortgage bonds due March 1, 1984. **Proceeds**—For property additions and improvements and to repay bank loans. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Union Securities Corp., Equitable Securities Corp. and Drexel & Co. (jointly); Blyth & Co., Inc. and Kidder, Peabody & Co. (jointly); Morgan Stanley & Co.; Lehman Brothers; The First Boston Corp.; Harriman Ripley & Co., Inc. **Bids**—To be received up to 11 a.m. (EST) on March 16 at the office of Southern Services, Inc., 20 Pine Street, New York 5, N. Y.

• Alaska Telephone Corp., Seattle, Wash. (3/18)
Feb. 10 (letter of notification) $270,000 face amount of 6% 10-year convertible debentures, series B. **Price**—70% of principal amount. **Proceeds**—For general operating expenses and working capital. **Underwriter**—Tellier & Co., New York.

★ American Electronic Laboratories, Inc.
Feb. 26 (letter of notification) an undisclosed number of shares of class A stock (no par) and preferred stock (par $10). **Office** — 641 Arch St., Philadelphia, Pa. **Business** — Electronic and electrical devices. **Underwriter**—None.

★ American National Cattlemen's Association
Feb. 25 (letter of notification) $150,000 of 3% non-negotiable 10-year promissory notes to be offered only to members of the Association. **Price**—At par. **Proceeds**—To finance construction of office building. **Office**—515 Cooper Building, Denver, Colo. **Underwriter**—None.

• Armstrong Rubber Co. (3/12)
March 31, 1953, filed $4,000,000 of 5½% convertible subordinated debentures due 1974 (as amended). **Price**—To be supplied by amendment. **Proceeds**—For working capital. **Underwriter**—Reynolds & Co., New York.

★ Audio Devices, Inc., N. Y. (3/9)
Feb. 19 (letter of notification) 10,000 shares of common stock (par 10 cents). **Price**—At market (about $3.75 per share). **Proceeds** — To selling stockholder. **Underwriter**—Peter Morgan & Co., New York.

★ Baltimore Feed & Grain Co., Baltimore, Md.
Feb. 19 (letter of notification) $200,000 of 6% debentures to mature serially, $50,000 beginning in 1964. **Price**—At par (in denominations of $100 each). **Proceeds**—For construction of new plant in Federalsburg, Md. **Office**—2341 Boston Street, Baltimore, Md. **Underwriter** — None.

Basin Natural Gas Corp., Santa Fe, N. M.
Dec. 23 (letter of notification) 748,000 shares of common stock (par five cents). **Price**—40 cents per share. **Proceeds**—To acquire properties and leases. **Office** — Blatt Bldg., Santa Fe, N. M. **Underwriter**—Hunter Securities Corp., New York.

• Bolsa Chica Oil Corp.
Feb. 16 (letter of notification) 77,624 shares of capital stock (par $1) to be offered for subscription by stockholders of record on or about March 4. **Price** — $3.75 per share. **Proceeds**—For working capital and general corporate purposes. **Office**—727 West Seventh Street, Los Angeles, Calif. **Underwriter**—None.

★ Bullock Fund, Ltd., New York
Feb. 26 filed 100,000 shares of capital stock. **Price**—At market. **Proceeds**—For investment.

Cahokia Downs, Inc., East St. Louis, Ill.
Feb. 15 filed $1,400,000 of 10-year 6% first mortgage bonds due Jan. 1, 1964, and 140,000 shares of common stock (par $1). **Price**—Of bonds, at 100% of principal amount; and of stock, $1.50 per share. **Proceeds**—For construction and operation of racing plant. **Underwriter**—Dixon Bretscher Noonan Inc., Springfield, Ill.

California Interstate Telephone Co. (3/9)
Feb. 5 filed 300,000 shares of common stock (par $5). **Price**—To be supplied by amendment. **Proceeds**—From sale of stock, together with net proceeds to be received from private sale of $4,200,000 first mortgage bonds and $1,500,000 4¾% debentures, to be used primarily to purchase from California Electric Power Co. all of the capital stock of Interstate Telegraph Co. **Office**—San Bernardino, Calif. **Underwriter** — William R. Staats & Co., Los Angeles, Calif.

California Oregon Power Co. (3/9)
Feb. 10 filed $10,000,000 first mortgage bonds due March 1, 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriter**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co., Inc.; White & Co.; Blyth & Co., Inc., The First Boston Corp. and Salomon Bros. & Hutzler (jointly); Shields & Co., Merrill Lynch, Pierce, Fenner & Beane and Kidder, Peabody & Co. (jointly). **Bids** — To be received up to 8 a.m. (PST) on March 9 at American Trust Co., 464 California St., San Francisco, Calif.

★ Canadian Fund, Inc., New York
Feb. 26 filed 250,000 shares of capital stock. **Price**—At market. **Proceeds**—For investment.

★ Commodity Holding Corp. (3/9)
Feb. 25 (letter of notification) 100,000 shares of common stock (par $1). **Price**—$3 per share. **Proceeds**—To trade in commodity futures or commodities. **Office**—15 Exchange Place, Jersey City, N. Y. **Underwriter**—L. H. Rothchild & Co., New York.

★ Community Public Service Co. (4/6)
March 1 filed $3,000,000 of first mortgage bonds, series D, due March 1, 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriter** — To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Equitable Securities Corp.; Blyth & Co., Inc. **Bids**—To be received up to 11 a.m. (EST on April 6 at 90 Broad Street, New York, N. Y.

★ Dallas Power & Light Co. (3/24)
Feb. 25 filed 70,000 shares of cumulative preferred stock (no par). **Proceeds**—For new construction. **Underwriter** — To be determined by competitive bidding. Probable bidders: Union Securities Corp.; The First Boston Corp.; White, Weld & Co.; Lehman Brothers; Blyth & Co., Inc.; Harriman Ripley & Co. Inc. and Kidder, Peabody & Co. (jointly). **Bids**—Expected to be received up to 11 a.m. (EST) on March 24.

Delhi Oil Corp., Dallas, Tex.
Jan. 22 filed 1,031,758 shares of common stock (par $1) being offered for subscription by stockholders of record Feb. 15 on the basis of two new shares for each five shares held (with an oversubscription privilege); rights to expire on March 10. **Price**—$10 per share. **Proceeds**—To pay approximately $8,500,000 indebtedness maturing within the current fiscal year and the remainder used for general corporate purposes and working capital. **Underwriter**—None.

Detroit Edison Co.
Feb. 24 filed $40,000,000 of general and refunding mortgage bonds, series N, due March 15, 1984. **Proceeds**—To redeem 3⅞% series M bonds due May 1, 1988. **Underwriter**—To be determined by competitive bidding. Prob-

NEW ISSUE CALENDAR

March 5 (Friday)
Rand Development Corp. ____ Common
(Fulton, Reid & Co.) $2,000,000

March 8 (Monday)
Nuclear Research Co. ____ Common
(Tellier & Co.) $300,000

March 9 (Tuesday)
Audio Devices, Inc. ____ Common
(Peter Morgan & Co.) $37,500
California Interstate Telephone Co. ____ Common
(William R. Staats & Co.) 300,000 shares
California Oregon Power Co. ____ Bonds
(Bids 8 a.m. PST) $10,000,000
Commodity Golding Corp. ____ Common
(L. H. Rothchild & Co.) $300,000
General Telephone Corp. ____ Common
(Paine, Webber, Jackson & Curtis; Stone & Webster Securities Corp.; and Mitchum, Tully & Co.) 500,000 shares
Matheson Co., Inc. ____ Debentures
(Mohawk Valley Investing Co., Inc. and Security & Bond Co.) $50,000

March 10 (Wednesday)
Federal Electric Products Co. ____ Common
(H. M. Byllesby & Co., Inc. and Hayden, Stone & Co.) 175,000 shares
Fireman's Fund Insurance Co. ____ Common
(The First Boston Corp.; Blyth & Co., Inc.; and Dean Witter & Co.) 605,000 shares
Reynolds Uranium Corp. ____ Common
(Luckhurst & Co., Inc.) $300,000
Sheraton Corp. of America ____ Debentures
(Offering to stockholders—underwritten by Paine, Webber, Jackson & Curtis and Hamlin & Lunt) $3,300,000

March 12 (Friday)
Armstrong Rubber Co. ____ Debentures
(Reynolds & Co.) $4,000,000
Wisconsin Public Service Corp. ____ Common
(The First Boston Corp.; Merrill Lynch, Pierce, Fenner & Beane; Robert W. Baird & Co., Inc.; and William Blair & Co.) 316,867 shares

March 15 (Monday)
Baltimore & Ohio RR. ____ Bonds
(Bids to be invited) $65,000,000
Spa-King Mount Clemens Water Products Corp. ____ Common
(Teden & Co., Inc.) $299,000

March 16 (Tuesday)
Alabama Power Co. ____ Bonds
(Bids 11 a.m. EST) $17,000,000
El Paso Electric Co. ____ Bonds & Preferred
(Bids 11 a.m. EST) $6,500,000
Goebel Brewing Co. ____ Preferred
(Van Alstyne, Noel & Co. and Nauman, McFawn & Co.) $2,000,000

March 17 (Wednesday)
Light Metals Refining Corp. ____ Common
(Philip Gordon & Co., Inc.) $5,000,000
Pennsylvania Electric Co. ____ Bonds
(Bids 11 a.m. EST) about $12,000,000
Stromberg-Carlson Co. ____ Preferred
(The First Bonston Corp). $3,601,250
Texas Gas Transmission Corp. ____ Common
(Dillon, Read & Co. Inc.) 200,000 shares

March 18 (Thursday)
Alaska Telephone Corp. ____ Debentures
(Tellier & Co.) $270,000
Douglas Oil Co. of California ____ Preferred
(Shearson, Hammill & Co.) $1,250,000
Douglas Oil Co. of California ____ Common
(Shearson, Hammill & Co.) 15,000 shares

March 19 (Friday)
National Union Fire Insurance Co. ____ Common
(Offering to stockholders—underwritten by The First Boston Corp.) $6,000,000
Pennsylvania Gas Co. ____ Common
(Offering to minority stockholders) 17,526 shares

March 23 (Tuesday)
Louisiana Power & Light Co. ____ Preferred
(Bids noon EST) $7,000,000
Merchants Acceptance Corp. ____ Debentures
(G. H. Walker & Co.) $1,300,000
Utah Power & Light Co. ____ Common
(Bids 11 a.m. EST) 200,000 shares

March 24 (Wednesday)
Dallas Power & Light Co. ____ Preferred
(Bids 11 a.m. EST) $7,000,000
Laclede Gas Co. ____ Debentures
(Bids 11 a.m. EST) $10,000,000
Mallinckrodt Chemical Works ____ Common
(Newhard, Cook & Co.) 75,000 shares
Texas & Pacific Ry. ____ Equip. Trust Ctfs.
(Bids noon EST) $1,240,000

March 25 (Thursday)
Southern Indiana Gas & Electric Co. ____ Common
(Smith, Barney & Co.) 114,166 shares

March 26 (Friday)
Mountain States Telephone & Telegraph Co. ____ Common
(Offering to stockholders—no underwriting) 487,248 shares

March 29 (Monday)
Pacific Power & Light Co. ____ Common
(Bids 11 a.m. EST) $8,000,000

March 30 (Tuesday)
San Diego Gas & Electric Co. ____ Bonds
(Bids 11 a.m. EST) $17,000,000

April 1 (Thursday)
Pannsylvania Power & Light Co. ____ Common
Offering to stockholders—may be underwritten by Drexel & Co. and The First Boston Corp.) 705,000 shares

April 5 (Monday)
North American Uranium & Oil Corp. ____ Common
(Israel & Co.) $1,500,000

April 6 (Tuesday)
Community Public Service Co. ____ Bonds
(Bids 11 a.m. EST) $3,000,000
Georgia Power Co. ____ Bonds
(Bids 11 a.m. EST) $11,000,000

April 12 (Monday)
Gulf Insurance Co. ____ Common
(Offering to stockholders—no underwriting) 5,000 shares
National Fuel Gas Co. ____ Debentures
(Bids 11 a.m. EST) $15,000,000

(April 13 (Tuesday)
Southern Indiana Gas & Electric Co. ____ Bonds
(Bids to be invited) $8,000,000
Texas Utilities Co. ____ Common
(Bids to be received) 250,000 shares

April 14 (Wednesday)
Ohio Power Co. ____ Bonds
(Bids 11 a.m. EST) $20,000,000
Ohio Power Co. ____ Preferred
(Bids 11 a.m. (EST) $5,000,000

April 20 (Tuesday)
Arkansas Power & Light Co. ____ Preferred
(Bids 11 a.m. EST) $7,000,000
West Penn Power Co. ____ Bonds
(Bids to be invited) $12,000,000

April 21 (Wednesday)
Columbia Gas System, Inc. ____ Debentures
(Bids to be invited) $50,000,000

May 4 (Tuesday)
New Jersey Bell Telephone Co. ____ Bonds
(Bids to be invited) $25,000,000

May 14 (Friday)
First Nat'l Bank of Toms River, N. J. ____ Common
(Offering to stockholders) $150,000

May 19 (Wednesday)
Utah Power & Light Co. ____ Bonds
(Bids noon EDT) $15,000,000

able bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp.; Coffin & Burr, Inc. and Spencer, Trask & Co.

★ Diversified Investment Fund, Inc., Elizabeth, N. J.
Feb. 25 filed 1,000,000 shares of capital stock. **Price**—At market. **Proceeds**—For investment.

Douglas Oil Co. of California (3/18)
Feb. 23 filed 50,000 shares of cumulative convertible preferred stock. **Price** —At par ($25 per share). **Proceeds**—To repay bank loans and for expansion and working capital. **Underwriter**—Shearson, Hammill & Co., Los Angeles and New York.

Douglas Oil Co. of California (3/18)
Feb. 23 filed 15,000 shares of common stock (par $1). **Price**—To be related to the then current market price on the American Stock Exchange. **Proceeds**—To Woodrow G. Krieger, President. **Underwriter** — Shearson, Hammill & Co., Los Angeles and New York.

★ Duggan's Distillers Products Corp.
Feb. 19 (letter of notification) 200,000 shares of common stock (par 10 cents) to be offered to stockholders. **Price**—25 cents per share. **Proceeds**—For general corporate purposes. **Office**—248 McWhorter St., Newark 5, N. J. **Underwriter**—None.

★ Eaton & Howard Stock Fund, Boston, Mass.
Feb. 25 filed 300,000 shares of capital stock. **Price** — At market. **Proceeds**—For investment.

● El Paso Electric Co.
Feb. 4 filed 76,399 shares of common stock (no par) being offered for subscription by common stockholders of record Feb. 23 on the basis of one new share for each 10 shares held. Rights will expire on March 11. **Price** —$28 per share. **Proceeds**—From sale of common stock, together with proceeds from subsequent sale at competitive bidding of 15,000 shares of preferred stock (no par) and $5,000,000 of first mortgage bonds due 1984, to be used to repay bank loans and for new construction. **Dealer Manager** — Stone & Webster Securities Corp., New York.

El Paso Electric Co. (3/16)
Feb. 19 filed $5,000,000 of first mortgage bonds due March 1, 1984. **Proceeds**—To repay bank loans and for construction program. **Underwriter** — To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Equitable Securities Corp.; Salomon Bros. & Hutzler; Kidder, Peabody & Co., White, Weld & Co. and Shields & Co. (jointly); Stone & Webster Securities Corp.; Merrill Lynch, Pierce, Fenner & Beane. **Bids**—To be received up to 11 a.m. (EST) on March 16 at 90 Broad Street, New York City.

El Paso Electric Co. (3/16)
Feb. 19 filed 15,000 shares of preferred stock (no par): **Proceeds**—For construction program. **Underwriter**—To be determined by competitive bidding. Probable bidders: Kidder, Peabody & Co., White, Weld & Co. and Shields & Co. (jointly); Stone & Webster Securities Corp.; Merrill Lynch, Pierce, Fenner & Beane. **Bids**—To be received up to 11 a.m. (EST) on March 16 at 90 Broad Street, New York City.

★ Elk-Pine Petroleum Co., Inc.
Feb. 23 (letter of notification) 142,500 shares of common stock. **Price**—At par ($1 per share). **Proceeds**—to develop leases now held. **Office**—Watrous, Pa. **Underwriter**—None.

Federal Electric Products Co. (3/10)
Feb. 17 filed 175,000 shares of common stock (par $1). **Price**—To be supplied by amendment. **Proceeds**—To reduce short-term bank loans incurred to provide working capital. **Office**—Newark, N. J. **Underwriters**—H. M. Byllesby & Co. (Inc.), Chicago, Ill., and Hayden, Stone & Co., New York.

Fidelity Acceptance Corp., Minneapolis, Minn.
Jan. 26 (letter of notification) 2,800 shares of 6% cumulative preferred stock, class E. **Price**—At par ($25 per share). **Proceeds**—To be available to subsidiaries and reduce outstanding bank loans. **Office**—820 Plymouth Bldg., Minneapolis, Minn. **Underwriters**—M. H. Bishop & Co., Minneapolis, Minn.; and B. I. Barnes, Boulder, Colo.

Financial Credit Corp., New York
Jan. 29 filed 250,000 shares of 7% cumulative sinking fund preferred stock. **Price**—At par ($2 per share). **Proceeds**—For working capital. **Underwriter**—E. J. Fountain & Co., Inc., New York.

Fireman's Fund Insurance Co. (3/10)
Feb. 16 filed 605,000 shares of common stock (par $2.50). **Price**—To be supplied by amendment. **Proceeds** —To finance acquisition of National Surety Corp. and for working capital. **Underwriters** — The First Boston Corp., New York, and Blyth & Co., Inc. and Dean Witter & Co., both of San Francisco, Calif., and New York, N. Y.

Gamma Corp., Wilmington, Del.
Feb. 2 (letter of notification) 140,000 shares of common stock (par 10 cents). **Price**—$1.50 per share. **Proceeds**—For inventory, capital expenditures and working capital. **Office**—100 West 10th Street, Wilmington, Del. **Underwriter**—Sheehan & Co., Boston, Mass.

★ General Guaranty Insurance Co., Winter Park, Fla.
Feb. 26 (letter of notification) 12,000 shares of common stock (par $10) to be offered to stockholders. **Price**—$20 per share. **Proceeds**—To increase capital and surplus. **Office**—130 Park Avenue, North, Winter Park, Fla. **Underwriter**—None.

General Telephone Corp., N. Y. (3/9)
Feb. 17 filed 300,000 shares of common stock (par $20). **Price**—To be supplied by amendment. **Proceeds**—For investments in additional stock equities of subsidiaries and temporary advances to subsidiaries for reduction of their bank loans and for use in connection with the 1954 construction program. **Underwriters**—Paine, Webber, Jackson & Curtis and Stone & Webster Securities Corp., both of New York; and Mitchum, Tully & Co., San Francisco, Calif.

Glasspar Co., Santa Ana, Calif.
Feb. 17 (letter of notification) 250,000 shares of common stock. **Price**—At par ($1 per share). **Proceeds**—For working capital and expenses incident to business of manufacture and sale of laminated fiberglass products. **Office**—19101 Newport Boulevard, Santa Ana, Calif. **Underwriter**—Marache, Dofflemyre & Co., Los Angeles, Calif.

● Goebel Brewing Co. (3/16)
Feb. 24 filed 200,000 shares of 60-cent convertible preferred stock (par $10) to be offered to common stockholders of record March 12 on the basis of one share of preferred stock for each seven shares of common stock held; rights to expire on March 31. **Price**—To be supplied by amendment. **Proceeds**—For expansion and working capital. **Underwriters**—Van Alstyne, Noel & Co., New York, and Nauman, McFawn & Co., Detroit, Mich.

Growers Container Corp., Salinas, Calif.
Feb. 15 filed 1,450,000 shares of common stock, to be offered primarily to individuals and firms in the Salinas Valley, Imperial Valley, Yuma, Phoenix, and other districts in and outside of San Francisco and Arizona, who are engaged in or allied to the growing and shipping industry. **Price**—At par ($1 per share). **Proceeds**—Construction of plants, acquisition of equipment, and for working capital. **Business**—Primarily manufacture of cartons and bags used for shipment of various vegetables. **Underwriter**—None.

Israel (State of)
Feb. 24 filed $350,000,000 of development bonds to be offered in two types, viz: 15-year 4% dollar coupon bonds and 10-year dollar savings (capital appreciation) bonds. **Price**—100% of principal amount. **Proceeds**—For investment in The State of Israel for agriculture, industry and power, transportation and communication, and low cost housing; and for general reserve. **Underwriter** —American Financial & Development Corp. for Israel, New York.

Jupiter Steamship Co., Wilmington, Del.
Feb. 16 (letter of notification) 20,000 shares of common stock (no par) to be initially offered to stockholders. **Price**—$10 per share. **Proceeds**—To pay balance due on two ships and for working capital. **Office**—100 West 10th Street, Wilmington, Del. **Underwriter**—None.

Keystone Mining Corp. (Pa.)
Feb. 10 (letter of notification) 291,300 shares of class A common stock. **Price**—At par ($1 per share). **Proceeds** —To purchase land and erect buildings, to purchase mineral rights and leases and to develop and exploit mining properties. **Office**—21 North Duke St., Lancaster, Pa. **Underwriter**—None.

★ Laclede Gas Co., St. Louis, Mo. (3/24)
Feb. 26 filed $10,000,000 sinking fund debentures due 1974. **Proceeds**—For repayment of bank loans and for construction costs. **Underwriter**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Lehman Brothers; The First Boston Corp.; Blair, Rollins & Co. Inc.; Stone & Webster Securities Corp. **Bids**—Tentatively scheduled to be received up to 11 a.m. (EST) on March 24.

Light Metals Refining Corp., New York (3/17)
Feb. 15 filed 1,250,000 shares of common stock (par $1). **Price** — $4 per share. **Proceeds** — For construction and equipment of control plant, and main plant, working capital, advance royalties and reserves. **Business** — To refine beryllium ore and market the products. **Underwriter**—Philip Gordon & Co., Inc., New York.

Los Angeles Drug Co.
Jan. 28 filed $178,000 of 15-year 5% sinking fund debentures, due Oct. 1, 1966, and 50,000 shares of capital stock (no par), the latter to be first offered for subscription by stockholders. **Price**—For debentures, at par; and for stock, $10 per share. **Proceeds**—To finance expanded merchandise inventory and operating equipment (new building), and for working capital. **Underwriter**—None.

★ Louisiana Power & Light Co. (3/23)
Feb. 25 filed 70,000 shares of cumulative preferred stock (par $100). **Proceeds**—For construction program. **Underwriters**—To be determined by competitive bidding. Probable bidders: Blyth & Co., Inc.; W. C. Langley & Co. and The First Boston Corp. (jointly); Lehman Brothers; Kuhn, Loeb & Co.; Union Securities Corp.; Equitable Securities Corp.; Kidder, Peabody & Co. and Merrill Lynch, Pierce, Fenner & Beane (jointly). **Bids** —Expected to be received up to noon (EST) on March 23, 1954.

★ Magnetics, Inc.
Feb. 19 (letter of notification) 250,000 shares of common stock. **Price**—At par ($1 per share). **Proceeds**—To pay part of cost of plant and equipment facilities. **Business** — Produces magnetic amplifiers, magnetometers and tape wound cores for use in electrical and electronics equipment. **Office**—10th St. and Railroad Ave., East Butler, Pa. **Underwriter**—None.

Magnolia Park, Inc.
Jan. 29 filed $2,500,000 of 6% subordinated convertible debentures due 1969 and 250,000 shares of common stock (par 10 cents) to be offered in units of $100 of debentures and 10 shares of stock. **Price**—$101 per unit. **Proceeds**—For construction of racing plant and for expenses incident to racing activities. **Underwriters**—Gearhart & Otis, Inc. and Hunter Securities Corp., both of New York; and T. J. Feibleman & Co., New Orleans, La.

★ Mallinckrodt Chemical Works, St. Louis, Mo. (3/24)
March 1 filed 75,000 shares of class A common stock par $10). **Price**—To be supplied by amendment. **Proceeds**—For expansion. **Underwriter**—Newhard, Cook & Co., St. Louis, Mo.

● Matheson Co., Inc. (3/9)
Feb. 19 (letter of notification) $50,000 of 10-year 6% convertible debentures dated Jan. 1, 1954 and due Jan. 1, 1964. **Price**—100% and accrued interest. **Proceeds**—To construct plant in Norwood, O., and for working capital. **Underwriters**—Mohawk Valley Investing Co., Inc., Utica, N. Y., and Security & Bond Co., Lexington, Ky.

McBride Oil & Gas Corp., San Antonio, Tex.
Jan. 26 filed 2,000,000 shares of common stock (par 10 cents). **Price**—To be supplied by amendment. **Proceeds** To repay notes, for exploration and drilling expenses and additions to properties, and for working capital. **Underwriter** — Continental Securities Corp., Houston, Texas.

Medina Oil Corp., Orlean, N. Y.
Dec. 9 (letter of notification) 2,800 shares of common stock. **Price**—At par ($100 per share). **Proceeds**—To purchase drill rig, etc. **Office** — 10 East Corydon St., Bradford, Pa. **Underwriter** — Winner & Myers, Lock Haven, Pa.

★ Merchants Acceptance Corp., N. Y. (3/23)
March 1 filed $1,300,000 12-year sinking fund subordinated debentures due March 1, 1966. **Price**—100% of principal amount. **Proceeds**—To pay $306,000 of outstanding subordinated debt and for other corporate purposes. **Underwriter**—G. H. Walker & Co., New York.

● Merritt-Chapman & Scott Corp., New York
Dec. 31 filed 513,594 shares of common stock (par $12.50) being offered in exchange for 1,078,546.25 shares of authorized and issued common stock (par $1) of Newport Steel Corp. at rate of one share of Merritt-Chapman stock for each 2.1 shares of Newport stock. Offer will expire on March 27. **Underwriter**—None.

Mississippi Chemical Corp., Yazoo City, Miss.
Jan. 5 filed 26,666 shares of special common stock (par $75—limited dividend) and $1,500,000 of certificates of participation (to be sold in multiples of $75—5% interest). **Proceeds**—From sale of these securities, together with bank borrowings, are to be used for expansion of facilities. **Underwriter**—None. Sales will be handled by company employees. **Offering**—Expected during March.

● Missouri Public Service Co.
Jan. 14 filed 527,865 shares of common stock (no par) to be offered for subscription by common stockholders on a share-for-share basis (with a 13-day standby). **Price** —To be supplied by amendment. **Proceeds**—Together with other funds, to acquire capital stock of Gas Service Co. (a subsidiary of Cities Service Co.). **Underwriter**—Kidder, Peabody & Co., New York. On Feb. 25, the sale of Gas Service Co. was called off by Cities Service Company.

Mohawk Airlines, Inc.
Feb. 11 (letter of notification) 72,500 shares of capital stock (par $1). **Price** — $4 per share. **Proceeds** — To acquire flight equipment and for working capital. **Office** —Cornell University Airport, Ithaca, N. Y. **Underwriter** —None.

Monterey Oil Co., Los Angeles, Calif.
Feb. 2 filed 257,338 shares of common stock (par $1). **Price**—At the market price then prevailing on the New York Stock Exchange, or through special offerings or secondary distributions. **Proceeds**—To Lehman Borthers (400 shares); partners of Lehman Brothers and members of their immediate families (150,458); and The Lehman Corp. (106,480). **Underwriter**—None. No general offer planned.

★ National Union Fire Insurance Co. (3/19)
Feb. 26 filed 200,000 shares of capital stock (par $5) to be offered for subscription by stockholders of record March 19 on the basis of one new share for each two shares held; rights to expire on April 19. **Price**—$30 per share. **Proceeds**—To be added initially to the company's general funds to be invested in securities which are qualified as legal investments. **Underwriter**—The First Boston Corp., New York.

New Bristol Oils, Ltd., Toronto, Ont., Canada
Dec. 18 filed 1,000,000 shares of common stock (par $1). **Price**—To be related to the bid price of the shares on the Toronto Stock Exchange, with a 20% underwriting commission. **Proceeds**—For general corporate purposes. **Underwriter**—To be named by amendment.

New England Gas & Electric Association
Dec. 10 filed 32,126 common shares of beneficial interest (par $8) being offered in exchange for common stock of New Bedford Gas & Edison Light Co. held by minority stockholders on the basis of 4¾ New England shares for each New Bedford share held. The offer will expire on April 24. **Financial Advisor**—The First Boston Corp., New York.

★ New Yorker Magazine, Inc.
Feb. 23 (letter of notification) 2,400 shares of common stock (par $1). **Price**—$20.25 per share. **Proceeds**—To a selling stockholder. **Underwriter** — Silberberg & Co., New York.

★ North American Uranium & Oil Corp., N. Y. (4/5)
March 1 filed 750,000 shares of common stock (par 10 cents). **Price**—$2 per share. **Proceeds**—For capital expenditures, including payment of balance due on certain claims and properties. **Underwriter**—Israel & Co., New York.

Continued on page 64

Continued from page 63

● **Nuclear Research Co. (Pa.) (3/8)**
Jan. 21 (letter of notification) 2,000,000 shares of common stock (par one cent). **Price**—15 cents per share. **Proceeds**—To repay bank loan and current trade obligations, to construct laboratory and for working capital. **Office**—2563 Grays Ferry Ave., Philadelphia, Pa. **Underwriter**—Tellier & Co., Jersey City, N. J.

★ **Pacific Power & Light Co. (3/29)**
Feb. 25 filed $8,000,000 first mortgage bonds due 1984. **Proceeds**—For construction program and to repay bank loans. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Kuhn, Loeb & Co.; Blyth & Co., Inc. and White, Weld & Co. (jointly); Kidder, Peabody & Co.; Union Securities Corp.; Bear Stearns & Co., Lehman Brothers and Salomon Bros. & Hutzler (jointly). **Bids**—Expected to be received up to 11 a.m. (EST) March 29.

Parkmaster Systems, Inc., Spokane, Wash.
Feb. 15 (letter of notification) 50,000 shares of common stock. **Price**—At par ($1 per share). **Proceeds**—For working capital and expenses incident to business of mechanical parking of autos. **Office**—602 Spokane & Eastern Building, Spokane, Wash. **Underwriter**—Walter J. Nicolls & Co., Spokane, Wash.

● **Penn-Dixie Cement Corp., New York**
Feb. 4 filed 120,427 shares of capital stock (par $7) being offered for subscription by stockholders of record Feb. 26 on the basis of one new share for each five shares held; rights to expire on March 15. **Price**—$35.50 per share. **Proceeds**—To repay bank loans and for expansion program. **Underwriter** — Merrill Lynch, Pierce, Fenner & Beane, New York.

Pennsylvania Electric Co. (3/17)
Feb. 18 filed $12,000,000 of first mortgage bonds due March 1, 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriter**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Equitable Securities Corp.; Kidder Peabody & Co., Merrill Lynch, Pierce, Fenner & Beane, Union Securities Corp. and White Weld & Co. (jointly); Harriman Ripley & Co., Inc.; Kuhn, Loeb & Co., Lehman Brothers, Drexel & Co. and Salomon Bros. & Hutzler (jointly); The First Boston Corp. **Bids**—Expected to be received up to 11 a.m. (EST) on March 17.

★ **Pennsylvania Gas Co. (3/19)**
Feb. 25 (letter of notification) 17,526 shares of capital stock (no par) to be offered for subscription by minority stockholders of record March 19 on basis of one new share for each 12½ shares held; rights to expire on April 26. National Fuel Gas Co., majority stockholder, will subscribe for an additional 28,554 shares. **Price**—$15 per share. **Proceeds**—For acquisition and working capital. **Office**—Warren, Pa. **Underwriter**—None.

Philip Morris & Co., Ltd., Inc., New York
Jan. 13 filed 443,561 shares of common stock (par $5) being offered in exchange for common shares of Benson & Hedges, on a share-for-share basis. Offer is subject to acceptance by holders of not less than 355,460 shares of Benson & Hedges stock, and will expire on March 1, unless extended. **Underwriter**—None.

★ **Pioneer Fund, Inc., Boston, Mass.**
Feb. 26 filed 400,000 shares of capital stock. **Price**—At market. **Proceeds**—For investment.

★ **Pittsburgh Consolidation Coal Co.**
Feb. 26 filed $2,000,000 of participations in company's "Investment Plan for Salaried Employees," and 50,000 shares of common stock (par $1) to be offered for subscription pursuant thereto.

Plastic Wire & Cable Corp., Jewett City, Conn.
Feb. 4 (letter of notification) 21,952 shares of common stock (par $5) being offered for subscription by common stockholders on the basis of one new share for each five shares held on Feb. 2; rights expire on March 12. **Price**—$10.50 per share. **Proceeds**—For working capital. **Underwriter** — None, but Putnam & Co., Hartford, Conn., will manage a group to assist in obtaining subscriptions.

★ **Playhouse Inn, Inc., New Hope, Pa.**
Feb. 19 (letter of notification) $124,200 5% debentures due May 1, 1974 and 4,140 shares of capital stock (par $20) in units of $60 of debentures and two shares of stock. **Price** — $100 per unit. **Proceeds** — To erect and equip hotel and for working capital. Address—Benj. L. Snyder, Treasurer, 2213 W. Ontario St., Philadelphia 40, Pa. **Underwriter**—None.

Rand Development Corp., Cleveland, O. (3/5)
Feb. 12 filed 200,000 shares of common stock (par five cents). **Price**—$10 per share. **Proceeds**—To pay development costs and for purchase of laboratory equipment. **Business**—The creation and development of new products. Company does not engage in basic research. **Underwriter**—Fulton, Reid & Co., Cleveland, O.

★ **Reynolds Uranium Corp., N. Y. (3/10)**
Feb. 23 (letter of notification) 30,000 shares of common stock (par $1). **Price** — $10 per share. **Proceeds** — For mining operations. **Office**—27 William St., New York, N. Y. **Underwriter**—Luckhurst & Co., Inc., New York.

★ **Rocky Mountain Tungsten, Inc., Denver, Colo.**
Feb. 24 (letter of notification) 100,000 shares of common stock (par 50 cents). **Proceeds**—To erect concentration plant and for mining operations.—**Office**—821 E. & C. Building, Denver, Colo. **Underwriter**—None.

★ **Rose, Kimball & Baxter, Inc., N. Y.**
Feb. 23 (letter of notification) 2,000 shares of 5% cumulative preferred stock. **Price**—At par ($100 per share). **Proceeds**—To reduce outstanding bank loans. **Business**—Wholesaler to retail hardware stores. **Office**—511 Baldwin St., Elmira, N. Y. **Underwriter**—None.

St. Regis Paper Co., New York
Feb. 3 filed 93,000 shares of common stock (par $5) to be offered in exchange for 30,000 shares of common stock of Superior Paper Products Co. on the basis of 3.1 shares of St. Regis stock for each Superior share. **Underwriter**—None.

★ **San Diego Gas & Electric Co. (3/30)**
March 3 filed $17,000,000 first mortgage bonds, series E, due 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co.; Blyth & Co., Inc.; The First Boston Corp.; Kuhn, Loeb & Co.; Salomon Bros. & Hutzler; White, Weld & Co., and Shields & Co. (jointly); Lehman Brothers; Union Securities Corp.; Merrill Lynch, Pierce, Fenner & Beane. **Bids**—Expected to be received up to 11 a.m. (EST) on March 30.

★ **San Juan Horse Racing Association**
Feb. 26 (letter of notification) 50,000 shares of common stock. **Price** — $1 per share. **Proceeds** — To construct track and for working capital. **Office** — 1040 Main Avenue, Durango, Colo. **Underwriter** — Matthew W. Thomas.

Scurry-Rainbow Oil Ltd., Calgary, Alta., Canada
Feb. 15 filed 4,700,416 shares of capital stock (par 50 cents) to be offered in exchange for the 2,670,000 shares of Scurry Oils Ltd. stock on a share-for-share basis, and in exchange for the 534,320 shares of Rainbow Oil Ltd. stock on a basis of 3.8 shares of Scurry-Rainbow stock for each Rainbow Oil share. **Underwriter**—None.

● **Selected American Shares, Inc., Chicago, Ill.**
Feb. 11 filed 150,000 shares of capital stock. **Price**—At market. **Proceeds**—For investment. **Underwriter**—None.

★ **Shedd Bartush Foods, Inc., Detroit, Mich.**
Feb. 23 (letter of notification) an unspecified number of shares of common stock (par $1) to be offered in exchange for Churngold Corp. stock on the basis of one share of Shedd Bartush stock for each 5½ shares of Churngold stock (aggregate amount not to exceed $50,000). **Office**—14401 Dexter Boulevard, Detroit 6, Mich. **Underwriter**—None.

● **Sheraton Corp. of America, Boston, Mass. (3/10)**
Feb. 18 filed $3,273,800 of 6% debentures due April 1, 1979 (with warrants to purchase shares of common stock, par 50 cents) to be offered for subscription by stockholders of record about March 10 on the basis of $100 of debentures (with stock purchase warrants) for each 100 shares of common stock held; rights to expire March 24. **Price**—To be supplied by amendment. **Proceeds**—Principally to reduce short-term bank loans. **Underwriters** — Paine, Webber, Jackson & Curtis, Boston, Mass.; and Hamlin & Lunt, Buffalo, N. Y.

★ **Shield Chemical Corp.**
March 1 (letter of notification) 200,000 shares of common stock (par 10 cents). **Price**—$1.50 per share. **Proceeds** — For expansion, research and development expenses and working capital. **Office** — 251 Grove Ave., Verona, N. J. **Underwriter** — Daggett Securities, Inc., Newark, N. J.

Silver Buckle Mining Co., Wallace, Ida.
Feb. 10 (letter of notification) 1,083,556 shares of common stock (par 10 cents). **Price**—12½ cents per share. **Proceeds**—To develop Vidicatot claims. **Address**—P. O. Box 1088, Wallace, Ida. **Underwriter**—To be filed by amendment.

★ **Spa-King Mount Clemens Water Products Corp. (3/15)**
March 1 (letter of notification) 299,000 shares of common stock (par 10 cents). **Price**—$1 per share. **Proceeds**—For working capital, etc. **Office**—34-24 Vernon Blvd., Long Island City 1, N. Y. **Underwriter**—Teden & Co., Inc., New York.

Strevell-Paterson Finance Corp.
Feb. 19 filed 640,000 shares of common stock (par 50 cents) to be offered in exchange for the $300,000 par value of authorized, issued and outstanding capital stock of Strevell-Paterson Finance Co. on the basis (a) of 13 shares of Corporation stock for each of the 5,000 shares of 5% cumulative preferred stock (par $10) of the Company and (b) 23 shares of Corporation stock for each of the 25,000 shares of $10 par common stock of the company. **Underwriter**—None. **Office**—Salt Lake City, Utah.

★ **Strom Oil Exploration Corp.**
Feb. 18 (letter of notification) 300,000 shares of common stock. **Price**—At par ($1 per share). **Proceeds**—For oil and gas operations. **Underwriter**—Clarence M. Strom, 139 N. Virginia Street, Reno, Nev.

● **Stromberg-Carlson Co. (3/17)**
Feb. 24 filed 72,025 shares of cumulative convertible preferred stock (par $50) to be offered to common stockholders of record March 15 on the basis of one new share for each seven shares held; rights to expire on March 31. **Price**—To be supplied by amendment. **Proceeds**—To repay $1,100,000 bank loans and for general corporate purposes. **Underwriter**—The First Boston Corp., New York.

★ **Texas Co., New York**
Feb. 25 filed $11,500,000 participations in company's "Employees Savings Plan" and 178,295 shares of capital stock (par $25) to be offered for subscription pursuant thereto.

★ **Texas Gas Transmission Corp. (3/17)**
Feb. 25 filed 200,000 shares of common stock (par $5). **Price**—To be supplied by amendment. **Proceeds**—To two selling stockholders. **Underwriter**—Dillon, Read & Co., Inc., New York.

● **Textron Incorporated, Providence, R. I.**
Feb. 8 filed 195,668.4 shares of 4% preferred stock, series B (par $100) and 489,171 shares of common stock (par 50 cents) to be offered to holders of the 978,342 shares of common stock of American Woolen Co. on the basis of one-fifth of a share of preferred and one-half share of common stock plus $2 in cash for each American Woolen common share. The offer will expire March 22, unless extended. **Dealer-Manager** — Blair, Rollins & Co. Inc., New York.

Union Uranium Co., Denver, Colo.
Feb. 16 (letter of notification) 29,910,000 shares of common stock, purchasers of the first 9,970,000 shares to be given the option to purchase two additional shares for each share purchased. **Price**—At par (one cent per share). **Proceeds**—For mining expenses. **Office**—230 E. 19th Avenue, Denver, Colo. **Underwriter**—J. W. Hicks & Co., Denver, Colo.

U. S. Airlines, Inc., New York
Feb. 12 (letter of notification) 19,000 shares of common stock (par five cents). **Price**—At market (estimated to be about 10 cents par share). **Proceeds**—To W. B. Haggerty, Tampa, Fla. **Underwriter**—Thomas & McKinnon, New York.

Utah Power & Light Co. (3/23)
Feb. 16 filed 200,000 shares of common stock (no par). **Proceeds**—To repay bank loans and for construction program. **Underwriter**—To be determined by competitive bidding. Probable bidders: Blyth & Co., Inc.; Kidder, Peabody & Co. and Merrill Lynch, Pierce, Fenner & Beane (jointly); Lehman Brothers; The First Boston Corp.; Union Securities Corp. and Smith, Barney & Co. (jointly). **Bids**—Tentatively expected to be received up to 11 a.m. (EST) on March 23, at Room 2033, Two Rector St., New York, N. Y.

Utah Power & Light Co. (5/19)
Feb. 16 filed $15,000,000 of first mortgage bonds due 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; White, Weld & Co. and Stone & Webster Securities Corp. (jointly); Union Securities Corp. and Smith, Barney & Co (jointly); Lehman Brothers and Bear, Stearns & Co. (jointly); The First Boston Corp. and Blyth & Co., Inc. (jointly); Kidder, Peabody & Co.; Salomon Bros. & Hutzler. **Bids**—Tentatively expected to be received up to noon (EDT) on May 19, at Room 2033, Two Rector St., New York, N. Y.

West Coast Pipe Line Co., Dallas, Tex.
Nov. 20, 1952 filed $29,000,000 12-year 6% debentures due Dec. 15, 1964, and 580,000 shares of common stock (par 50 cents) to be offered in units of one $50 debenture and one share of stock. **Price**—To be supplied by amendment. **Proceeds**—From sale of units and 1,125,000 additional shares of common stock and private sales of $55,000,000 first mortgage bonds to be used to build a 1,030 mile crude oil pipeline. **Underwriters** — White, Weld & Co. and Union Securities Corp., both of New York. **Offering**—Postponed indefinitely.

West Coast Pipe Line Co., Dallas, Tex.
Nov. 20, 1952 filed 1,125,000 shares of common stock (par 50 cents). **Price**—To be supplied by amendment. **Proceeds**—Together with other funds, to be used to build pipeline. **Underwriters**—White, Weld & Co. and Union Securities Corp., both of New York. **Offering**—Postponed indefinitely.

★ **Westinghouse Electric Corp., Pittsburgh, Pa.**
March 2 filed 483,190 shares of common stock (par $12.50) to be offered under restricted stock option plan to certain officers and other executive employees of company and its subsidiaries; and 200,000 shares of said stock to be offered under employees' stock plan to employees of company and six subsidiaries.

Wisconsin Public Service Corp. (3/12)
Feb. 19 filed 316,867 shares of common stock (par $10) to be offered for subscription by common stockholders of record March 12 on the basis of one new share for each seven shares held; rights to expire on March 30. Up to not exceeding 10,000 shares of unsubscribed shares to be offered first to employees. **Price**—To be supplied by amendment. **Proceeds** — For construction program. **Underwriters**—The First Boston Corp. and Merrill Lynch, Pierce, Fenner & Beane, both of New York; Robert W. Baird & Co., Inc., Milwaukee, Wis.; and William Blair & Co., Chicago, Ill.

Prospective Offerings

★ **Alabama Gas Corp.**
March 1 it was announced stockholders will vote April 20 on approving an increase in the authorized common stock (par $2) from 1,000,000 to 2,000,000 shares. Southern Natural Gas Co., parent, owns about 99% of the presently outstanding common stock. There are no plans for immediate financing. **Underwriter**—None.

★ **Allied Artists Pictures Corp., Hollywood, Calif.**
March 2, Steve Broidy, President, announced that stockholders will vote March 23 on approving an issue of $10 par convertible preferred stock, of which it is intended to issue and sell 150,000 shares. **Proceeds**—To expand company's production program and for working capital. **Underwriter** — Emanuel, Deetjen & Co., New York.

American Louisiana Pipe Line Co.
Nov. 10 company, a subsidiary of American Natural Gas Co., asked Federal Power Commission to authorize construction of a $130,000,000 pipe line, to be financed through the issuance of $97,500,000 of first mortgage bonds, $12,000,000 of interim notes convertible to preferred stock at option of company, and $20,500,000 of common stock (par $100), the latter to be sold to parent. Hearings before the FPC will commence on March 8.

★ **Arkansas Louisiana Gas Co.**
Feb. 22 it was reported Cities Service Co. may sell its holdings of 1,900,000 shares of this company's stock. If sold at competitive bidding, bidders may include Smith, Barney & Co. and Blyth & Co., Inc. (jointly).

Arkansas Power & Light Co. (4/20)
Feb. 8 it was reported company plans to issue and sell 70,000 shares of cumulative preferred stock (par $100). **Proceeds**—For construction program. **Underwriters**—To be determined by competitive bidding. Probable bidders: Blyth & Co., Inc.; The First Boston Corp. and W. C. Langley & Co. (jointly); Lehman Brothers, Equitable Securities Corp. and White, Weld & Co. (jointly). **Bids**—Expected to be received up to 11 a.m. (EST) on April 20.

Arkansas Power & Light Co.
Feb. 8 it was reported company plans to sell, probably in August, an issue of about $7,500,000 first mortgage bonds due 1984. **Underwriters** — To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp.; Lehman Brothers, Stone & Webster Securities Corp. and White, Weld & Co. (jointly); Blyth & Co., Inc., Equitable Securities Corp. and Central Republic Co. Inc. (jointly); Merrill Lynch, Pierce, Fenner & Beane and Union Securities Corp. (jointly).

● **Baltimore & Ohio RR. (3/15)**
Bids will be received by the Secretary of Reconstruction Finance Corporation, 811 Vermont Ave., N. W., Washington 25, D. C., on March 15 for the purchase from the RFC of all or any part of $65,000,000 collateral trust 4% bonds, series A, due Jan. 1, 1965 of this railroad. **Underwriter**—To be determined by competitive bidding. **Probable** bidders: Halsey, Stuart & Co. Inc., The First Boston Corp., Merrill Lynch, Pierce, Fenner & Beane and Alex. Brown & Sons (jointly); Bear, Stearns & Co.

Boston Edison Co.
Feb. 15 it was announced company plans to issue and sell about $15,000,000 of first mortgage bonds due 1984. **Proceeds**—For construction program. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp.; Lehman Brothers; Kuhn, Loeb & Co. and A. C. Allyn & Co. Inc. (jointly); White, Weld & Co.; Harriman Ripley & Co. Inc. **Offering**—Tentatively expected in June.

Carrier Corp.
Feb. 23 stockholders approved a proposal to increase the authorized common stock (par $10) from 1,600,000 shares to 5,000,000 shares and the authorized preferred stock (par $50) from 181,855 shares to 800,000 shares to provide for further possible financing. **Proceeds**—For expansion, etc. **Underwriters**—Harriman Ripley & Co. Inc. and Hemphill, Noyes & Co.

Central Illinois Electric & Gas Co.
Dec. 9 it was announced company intends to offer and sell around the middle of 1954 an issue of $4,000,000 first mortgage bonds. **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Stone & Webster Securities Corp.; Kidder, Peabody & Co. and White, Weld & Co. (jointly).

Central Maine Power Co.
Oct. 7 it was reported company plans sale during the first quarter of 1954 of $10,000,000 common stock after distribution by New England Public Service Co. of its holdings of Central Maine Power Co. common stock. Probable bidders: Blyth & Co., Inc. and Kidder, Peabody & Co. (jointly); Coffin & Burr, Inc.; A. C. Allyn & Co., Inc. and Bear, Stearns & Co. (jointly); Harriman Ripley & Co., Inc.

● **Central Power & Light Co.**
March 2 company applied to SEC for authority to issue and sell $18,000,000 first mortgage bonds, series F, due 1984. **Proceeds**—To refund an issue of $8,000,000 4⅛% series E bonds and to repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp., Eastman, Dillon & Co., Goldman, Sachs & Co. and White, Weld & Co. (jointly); Merrill Lynch, Pierce, Fenner & Beane and Salomon Bros. & Hutzler (jointly); Lehman Brothers; Union Securities Corp. and Kidder, Peabody & Co. (jointly). **Bids**—Tentatively expected to be received in May.

● **Columbia Gas System, Inc. (4/21)**
March 2 company filed an application with SEC covering a proposed offer of $50,000,000 convertible subordinated debentures due 1964 to common stockholders on the basis of $100 of debentures for each 36 shares held. **Proceeds** — For construction program. **Underwriter** — To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Morgan Stanley & Co. **Bids**—Tentatively scheduled for April 21.

Consolidated Natural Gas Co.
Jan. 27 it was reported company plans to issue and sell $25,000,000 of debentures due 1979. **Proceeds** — To purchase stock of company's operating subsidiaries, who in turn will apply these proceeds for construction. **Underwriters** — To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; White, Weld & Co. and Paine, Webber, Jackson & Curtis (jointly); Morgan Stanley & Co. and The First Boston Corp. (jointly). **Offering**—Tentatively expected in May.

Federal Loan Co. of Pittsfield, Inc.
Feb. 23 stockholders approved a proposal to increase the authorized class A common stock from 250,400 shares to 550,400 shares and the authorized convertible preferred stock from 100,000 shares to 250,000 shares and to change the name of corporation to Signature Loan Co., Inc. It is proposed to offer to the holders of the 29,458 shares of outstanding $1.20 cumulative participating preferred stock, one share of new 77-cent cumulative convertible preferred stock and one share of class A common stock for each participating preferred share held. **Price**—To stockholders, $15 per unit; and to public $15.50 per unit. **Underwriters**—Simon, Strauss & Himme, William N. Pope, Inc., and Chace, Whiteside, West & Winslow, Inc.

Fidelity Trust of America, Dallas, Tex.
Dec. 22 it was announced that company plans to increase its capitalization to $3,000,000, following which a registration statement will be filed with the SEC to authorize a new offering. There are presently authorized 35,000 shares of no par value, of which 33,750 shares will be outstanding following present offering and sale of 30,000 shares of common stock at $10 per share. **Business**—A discount and lending organization. **Office**—Fidelity Bldg., Dallas, Tex. **Underwriter**—May be Boylen, Kasper & Co., Dallas, Tex.

● **First National Bank of Portland (Ore.)**
Feb. 23 stockholders approved a proposal to issue and sell to stockholders of record Feb. 26 a total of 400,000 additional shares of $12.50 par value capital stock on the basis of one new share for each three shares held; rights to expire on April 15. **Price**—$40 per share. **Proceeds**—To increase capital and surplus. **Underwriter**—Unsubscribed shares to be purchased by Transamerica Corp.

First National Bank of Toms River, N. J. (5/14)
Jan 12 it was announced bank plans to offer for subscription by its stockholders of record May 1, 1954, an additional 3,000 shares of capital stock (par $10) on the basis of one new share for each 26 shares held; rights to expire on June 16. **Price**—$50 per share. **Proceeds**—To increase capital and surplus. **Underwriter**—None.

● **Florida Power Corp.**
Feb. 15 it was announced stockholders will vote March 25 on increasing authorized preferred stock from 250,000 to 500,000 shares and the common stock from 2,500,000 to 5,000,000 shares. **Underwriters** — Kidder, Peabody & Co., and Merrill Lynch, Pierce, Fenner & Beane, both of New York.

Florida Power & Light Co.
Jan. 25 it was reported company may later this year issue and sell about $15,000,000 of first mortgage bonds. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; White, Weld & Co.; Lehman Brothers; Merrill Lynch, Pierce, Fenner & Beane; Glore, Forgan & Co. and Harriman Ripley & Co. Inc. (jointly).

Foote Mineral Co., Philadelphia, Pa.
Feb. 20 it was announced stockholders will vote April 22 on increasing the authorized common stock (par $2.50) from 500,000 shares to 1,000,000 shares. There are presently 276,088 shares outstanding and an additional 43,217 shares are reserved for conversion of debentures and the remaining 180,695 shares are available for the employees' stock bonus plan. The proposed increase in capitalization is necessary to provide additional shares to finance the continued growth of the company, or if it seems advisable for stock dividends or a stock split. **Underwriter**—Estabrook & Co., New York and Boston.

★ **Gas Service Co. (Mo.)**
Feb. 25 Cities Service Co. announced the cancellation of its contract to sell the Gas Service Co.'s 1,500,000 shares of common stock to Missouri Public Service Co. for $32,000,000. If these shares are again registered with the SEC, they may be offered for sale at competitive bidding. Probable bidders include: Blyth & Co., Inc. and Kidder, Peabody & Co. (jointly); Smith, Barney & Co.; Stone & Webster Securities Corp. and Stern Bros. & Co. (jointly); Union Securities Corp.

General Public Utilities Corp.
Dec. 16 it was announced company plans to offer about 600,000 additional shares of common stock (par $5) to stockholders in March or April, 1954 — probably on the basis of one new share for each 15 shares held. **Price**—To be determined just prior to the offering date. **Proceeds**—To be invested in the domestic subsidiaries. **Underwriter**—None, but Merrill Lynch, Pierce, Fenner & Beane may act as clearing agent.

● **Georgia Power Co. (4/6)**
March 1 filed an application with SEC for issuance and sale of $11,000,000 first mortgage bonds due 1984. **Proceeds**—To repay bank loans and for construction program. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Blyth & Co., Salomon Bros. & Hutzler and Shields & Co. (jointly); Harriman Ripley & Co., Inc.; Union Securities Corp. and Equitable Securities Corp. (jointly); The First Boston Corp.; Lehman Brothers; Morgan Stanley & Co. **Registration**—Planned for March 10. **Bids**—Expected to be received up to 11 a.m. (EST) on April 6.

Gulf Insurance Co., Dallas, Texas (4/12)
Feb. 15, T. R. Mansfield, President, announced that company plans to offer to its stockholders of record April 12 the right to subscribe for 5,000 additional shares of capital stock (par $10) on a pro rata basis. **Price**—Not exceeding $55 per share. **Proceeds** — To increase capital and surplus. **Underwriters**—None.

Indiana & Michigan Electric Co.
Jan. 27 it was announced company plans to sell around November, 1954, an issue of about $16,500,000 first mortgage bonds due 1984 and 40,000 shares of cumulative preferred stock (par $100). **Underwriter** — To be determined by competitive bidding. Probable bidders: (1) For bonds—Halsey, Stuart & Co. Inc.; Union Securities Corp., Goldman, Sachs & Co. and White, Weld & Co. (jointly); The First Boston Corp.; Harriman Ripley & Co. Inc.; Kuhn, Loeb & Co.; (2) for preferred—The First Boston Corp.; Smith, Barney & Co.; Lehman Brothers; Union Securities Corp.

Inter-Mountain Telephone Co.
Dec. 23 it was reported company in April, 1954, may offer to its common stockholders some additional common stock. **Underwriter**—Courts & Co., Atlanta, Ga.

Jersey Central Power & Light Co.
Dec. 16 it was reported company tentatively plans to issue and sell in 1954 about $6,000,000 first mortgage bonds due 1984. **Proceeds** — For construction program. **Underwriters** — To be determined by competitive bidding, Probable bidders: Halsey, Stuart & Co. Inc.; White, Weld & Co.; Glore, Forgan & Co.; Kidder, Peabody & Co.; Union Securities Corp., Salomon Bros. & Hutzler and Merrill Lynch, Pierce, Fenner & Beane (jointly); The First Boston Corp.: Lehman Brothers.

Kansas City Power & Light Co.
Jan. 13 it was announced that company may issue and sell later in 1954 additional first mortgage bonds. **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Lehman Brothers and Bear, Stearns & Co. (jointly); Kuhn, Loeb & Co., Salomon Bros. & Hutzler and Union Securities Corp. (jointly); Glore, Forgan & Co.; Blyth & Co., Inc. and The First Boston Corp. (jointly); White, Weld & Co. and Shields & Co. (jointly); Harriman Ripley & Co., Inc.; Equitable Securities Corp.

Louisville & Nashville RR.
Nov. 12 it was reported that the company may issue and sell an issue of bonds late in 1954. **Proceeds**—To retire $24,610,000 Atlanta, Knoxville & Cincinnati Division 4% bonds due May 1, 1955, and for general corporate purposes. **Underwriters**—May be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Morgan Stanley & Co.; White, Weld & Co. and Salomon Bros. & Hutzler (jointly).

Metropolitan Edison Co.
Dec. 16 it was reported company may sell in 1954 about $3,500,000 first mortgage bonds due 1984. **Proceeds**—For construction program. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; White, Weld & Co.; Kidder, Peabody & Co. and Drexel & Co. (jointly); Kuhn, Loeb & Co. and Salomon Bros. & Hutzler (jointly).

Missouri Public Service Co.
Dec. 28 it was announced company plans to issue and sell $14,000,000 of common stock and borrow $18,000,000 from banks in connection with proposed acquisition of 1,500,000 shares of common stock of Gas Service Co. of Kansas City, Mo., at a total cost of $32,000,000. Following consummation of proposed merger of the two companies, it is planned to sell $9,000,000 of first mortgage bonds, $2,500,000 of debentures and 65,000 shares of preferred stock (par $100). **Proceeds** — To retire bank loans. **Underwriter**—For common stock (now in registration): Kidder, Peabody & Co.

Mountain States Telephone & Telegraph Co. (3/26)
Feb. 20 it was announced company will offer to its stockholders of record March 26, 1954 the right to subscribe on or before April 30 for 487,248 additional shares of capital stock on the basis of one new share for each four shares held. **Price**—At par ($100 per share). **Proceeds**—To repay advances from American Telephone & Telegraph Co. (owner of 85% of outstanding stock) and for new construction. **Underwriter**—None.

● **National Fuel Gas Co. (4/12)**
Feb. 9 it was reported company plans issue and sale of $15,000,000 25-year debentures. **Underwriters**—For any debentures to be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp.; Kuhn, Loeb & Co. and Wertheim & Co. (jointly); White, Weld & Co.; Harriman Ripley & Co. Inc. **Bids**—Tentatively expected to be received up to 11 a.m. (EST) on April 12.

● **New Jersey Bell Telephone Co. (5/4)**
Feb. 19 the company petitioned the New Jersey P. U. Commission for permission to issue and sell in May $25,000,000 of first mortgage bonds and $75,000,000 of capital stock (the latter to American Telephone & Telegraph Co.). **Proceeds**—To finance construction. **Underwriters** — To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Kuhn, Loeb & Co.; Morgan Stanley & Co.; Shields & Co.; White, Weld & Co.; The First Boston Corp. **Bids**—Tentatively expected May 4.

New Jersey Power & Light Co.
Dec. 16 it was reported this company tentatively plans issue and sale in 1954 of about $3,000,000 first mortgage bonds due 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Kuhn, Loeb & Co. and Lehman Brothers (jointly); Equitable Securities Corp.; Union Securities Corp. and White, Weld & Co. (jointly); Merrill Lynch, Pierce, Fenner & Beane.

New Orleans Public Service Inc.
Feb. 8 it was reported company plans to offer for sale $6,000,000 of first mortgage bonds due 1984 late this year. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Equitable Securities Corp.; Union Securities Corp. and Harriman Ripley & Co. Inc. (jointly); Lehman Brothers; Kidder, Peabody & Co. and Stone & Webster Securities Corp. (jointly); The First Boston Corp.; White, Weld & Co.

New York State Electric & Gas Corp.
Feb. 3 company sought authority from the New York P. S. Commission to sell an issue of $5,000,000 par value of preferred stock early this spring. It is also

Continued on page 66

Continued from page 65

planned to issue and sell in the spring $20,000,000 of first mortgage bonds. Previous financing was done privately.

Northern States Power Co. (Minn.)
Feb. 8 it was reported company is planning the issuance and sale of approximately $20,000,000 of first mortgage bonds due 1984 some time this year. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Lehman Brothers and Riter & Co. (jointly); Smith, Barney & Co.; Glore, Forgan & Co.; Merrill Lynch, Pierce, Fenner & Beane, Kidder, Peabody & Co. and White, Weld & Co. (jointly); Equitable Securities Corp. and Union Securities Corp. (jointly); Kuhn, Loeb & Co., A. C. Allyn & Co. Inc. and Wertheim & Co. (jointly).

Northern States Power Co. (Minn.)
Feb. 8 it was reported company plans to issue and sell 150,000 shares of cumulative preferred stock (no par) and 1,219,864 shares of common stock (par $5), the latter to be first offered for subscription by common stockholders on a 1-for-10 basis (with an oversubscription privilege). **Underwriters**—To be determined by competitive bidding. Probable bidders: (1) For preferred stock—Lehman Brothers and Riter & Co. (jointly); Smith, Barney & Co. (2) For common stock—Lehman Brothers and Riter & Co. (jointly); The First Boston Corp., Kuhn, Loeb & Co. and Blyth & Co., Inc. (jointly); Smith, Barney & Co.; White, Weld & Co. and Glore, Forgan & Co. (jointly). **Bids**—Tentatively expected to be received in April.

Ohio Power Co. (4/14)
Jan. 27 it was announced company plans to issue and sell an issue of $20,000,000 first mortgage bonds due 1984. **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp.; Blyth & Co., Inc.; Kuhn, Loeb & Co., A. C. Allyn & Co., Inc. and Coffin & Burr, Inc. (jointly); Union Securities Corp. and Salomon Bros. & Hutzler (jointly); Harriman Ripley & Co. Inc. and Stone & Webster Securities Corp. (jointly). **Bids**—Tentatively expected to be received up to 11 a.m. (EST) on April 14.

Ohio Power Co. (4/14)
Feb. 8 it was announced company plans to issue and sell 50,000 shares of cumulative preferred stock (par $100). **Proceeds**—To repay bank loans and for new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Lehman Brothers; Kuhn, Loeb & Co., A. C. Allyn & Co. Inc. and Coffin & Burr, Inc. (jointly); Blyth & Co., Inc.; Union Securities Corp. and Salomon Bros. & Hutzler (jointly); The First Boston Corp.; Harriman Ripley & Co., Inc. and Stone & Webster Securities Corp. (jointly). **Bids**—Tentatively expected to be received up to 11 a.m. (EST) on April 14.

★ Pennsylvania Power & Light Co. (4/1)
March 1 it was announced company plans to offer to its common stockholders of record about April 1 an issue of 705,000 shares of common stock (no par) on the basis of one share for each seven shares held. **Proceeds**—For construction program. **Underwriters**—Drexel & Co., Philadelphia, Pa. and The First Boston Corp., New York.

Public Service Co. of Colorado
Oct. 13 it was reported company is planning to float an issue of $15,000,000 first mortgage bonds, due 1984, early in 1954. **Proceeds**—For financing, in part, a $17,000,000 electric generating plant to be constructed in Denver, Colo. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Kuhn, Loeb & Co.; The First Boston Corp.; Harris, Hall & Co. Inc.; Harriman Ripley & Co., Inc. and Union Securities Corp. (jointly); Lehman Brothers; Kidder, Peabody & Co.; Blyth & Co., Inc. and Smith, Barney & Co (jointly).

Public Service Electric & Gas Co.
Jan. 27, G. H. Blake, President, announced that a $50,000,000 financing program is expected in the Spring The type of securities to be issued is still undetermined but some form of debt financing is indicated. **Underwriters**—For any bonds will be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co Inc.; Morgan Stanley & Co. and Drexel & Co. (jointly), Kuhn, Loeb & Co. and Lehman Brothers (jointly); The First Boston Corp. Previous public offering of common stock was handled by a group headed by Morgan Stanley & Co., Drexel & Co. and Glore, Forgan & Co.

Riddle Airlines, Inc.
Jan. 7 it was reported company plans to file a letter of notification soon to issue an aggregate value of up to $300,000 of new securities. **Underwriter**—Eisele & King Libaire, Stout & Co., New York.

★ Rochester Gas & Electric Corp.
Feb. 12 company applied to New York Public Service Commission for authority to issue and sell 50,000 additional shares of preferred stock (par $100). **Underwriter**—The First Boston Corp., New York.

Safeway Stores, Inc.
Feb. 8 it was reported that company plans later this year to issue and sell new securities. **Proceeds**—To repay bank loans and to redeem convertible preferred stock. **Underwriter** — Merrill Lynch, Pierce, Fenner & Beane, New York.

Scott Paper Co.
Feb. 23 it was announced stockholders will vote April 27 on increasing the authorized common stock from 5,000,000 to 10,000,000 shares and the authorized indebtedness of the company from $25,000,000 to $50,000,000. The company has no specific financing program. **Underwriters**—Previous offering of $24,952,800 3% convertible debentures, in September, 1953, was underwritten by Drexel & Co., Smith, Barney & Co. and Merrill Lynch, Pierce, Fenner & Beane.

Scudder Fund of Canada, Ltd.
Jan. 29 it was announced company intends to make an initial public offering of its common shares in the United States to realize at least $5,000,000.

★ South Carolina Generating Co.
March 1 it was reported this company, a subsidiary of South Carolina Electric & Gas Co., is planning to issue and sell $12,000,000 of bonds. **Proceeds**—To pay for new construction. **Underwriter**—May be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp. and Lehman Brothers (jointly); Kidder, Peabody & Co.; Union Securities Corp. Previous financing was done privately.

Southern Indiana Gas & Electric Co. (3/25)
Jan. 27 it was announced company plans to offer to its common stockholders 114,166 additional shares of common stock on a basis of one new share for each seven shares held about March 24; with rights to expire about April 9. **Proceeds**—For construction costs. **Underwriter**—Smith, Barney & Co., New York. **Registration**—Expected March 5.

Southern Indiana Gas & Electric Co. (4/13)
Jan. 27 it was announced company plans to issue and sell $8,000,000 of first mortgage bonds due 1984. **Proceeds**—For new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Smith, Barney & Co.; Kidder, Peabody & Co.; Carl M. Loeb, Rhoades & Co.; Salomon Bros. & Hutzler; The First Boston Corp.; Equitable Securities Corp.; White, Weld & Co. and Shields & Co. (jointly); Blair, Rollins & Co. Inc. **Registration** — Planned for March 5. **Bids**—Tentatively expected on April 13.

Southwestern Development Co.
Jan. 18 it was announced that Sinclair Oil Corp. will receive 769,722 shares of Pioneer Natural Gas Co. stock under plan of distribution of Southwestern's assets to be voted upon Feb. 15. **Underwriter**—Union Securities Corp., New York, underwrote sale of Sinclair's holdings in Colorado Interstate Gas Co.

Sutton (O. A.) Corp., Wichita, Kan.
Feb. 15 it was reported company may do some financing later this year, either public or private. **Business**—Air circulating equipment, etc.

Temco Aircraft Corp.
Feb. 9 it was reported sale of about $5,000,000 of preferred stock is planned, partly for account of company and part for selling stockholders. **Underwriters**—Van Alstyne, Noel & Co., New York. **Registration**—Expected in March.

Tennessee Gas Transmission Co.
Jan. 27 it was reported company plans issuance and sale of $20,000,000 of debentures in April or May and $25,000,000 of first mortgage pipe line bonds in July. **Proceeds**—For new construction. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; Stone & Webster Securities Corp. and White, Weld & Co. (jointly).

Texas & Pacific Ry. (3/24)
Bids will be received by the company up to noon (EST) on or about March 24 for the purchase from it of $1,240,000 equipment trust certificates due in 1-to-10 years. Probable bidders: Halsey, Stuart & Co. Inc.; Salomon Bros. & Hutzler; Kidder, Peabody & Co.; Blair, Rollins & Co. Inc.

Texas Utilities Co. (4/13)
Feb. 19 the directors authorized sale of 250,000 shares of common stock. **Proceeds**—For investment in subsidiaries. **Underwriters**—To be determined by competitive bidding. Probable bidders: Kidder, Peabody & Co., Merrill Lynch, Pierce, Fenner & Beane and Union Securities Corp. (jointly); Lehman Brothers and Bear, Stearns & Co. (jointly); The First Boston Corp. and Blyth & Co., Inc. (jointly). **Bids**—Expected to be received on April 13, 1954.

Trans-Canada Pipe Lines, Ltd.
Jan. 11 it was reported this company and Western Pipe Lines, Ltd. will merge preliminary to the financing and construction of a 2,240 mile natural gas pipe line from the Alberta fields to Toronto, Ottawa and Montreal. **Underwriters**—Lehman Brothers; Wood, Gundy & Co. Inc.

Trip-Charge, Inc., Pittsburgh, Pa.
Jan. 20 it was announced company is increasing its capital stock in contemplation of an underwriting. **Proceeds**—For expansion program and working capital. **Office**—Fifth Avenue at Hamilton, Pittsburgh 6, Pa. **Meeting**—Stockholders will vote Feb. 23 on doubling present authorized capital stock.

West Coast Telephone Co.
Feb. 6 it was announced California P. U. Commission has authorized company to issue 20,000 shares of common stock (par $25). **Proceeds**—To repay bank loans and for construction program. **Underwriter** — Blyth & Co., Inc., San Francisco, Calif.

West Coast Transmission Co.
Oct. 14 it was announced that company now plans to issue $29,000,000 in 1-to-5½-year serial notes; $71,000,000 in 20-year, first mortgage bonds; and $24,440,000 in subordinated long-term debentures and 4,100,000 shares of common stock to be sold to the public. **Proceeds**—To finance construction of a natural gas pipe line from the Canadian Peace River field to western Washington and Oregon. **Underwriter**—Eastman, Dillon & Co., New York.

West Penn Power Co. (4/20)
Feb. 1 it was reported company plans to issue and sell $12,000,000 of first mortgage bonds, series P, due 1984. **Proceeds**—For construction program of West Penn Power Co. and its subsidiaries. **Underwriters**—To be determined by competitive bidding. Probable bidders: Halsey, Stuart & Co. Inc.; The First Boston Corp.; Lehman Brothers; W. C. Langley & Co.; Kidder, Peabody & Co. and White, Weld & Co. (jointly); Kuhn, Loeb & Co.; Harriman Ripley & Co. Inc. **Registration** — Scheduled for March 26. **Bids**—Tentatively expected on April 20.

NSTA Notes

SECURITY TRADERS ASSOCIATION OF NEW YORK

Security Traders Association of New York, Inc. (STANY) Bowling League Standing as of Feb. 25, 1954 is as follows:

Team:	Points
Manson (Capt.), Jacobs, Topol, Weissman, H. Frankel	22
Growney (Capt.), Corby, Siegel, Voccoli, Lienhardt	15
Donadio (Capt.), Craig, Gronick, Bies, Demaye	15
Serlen (Capt.), Rogers, Gold, Krumholz, Gersten	14½
Leone (Capt.), Nieman, Gannon, Tisch, Greenberg	14½
Bean (Capt.), Bass, Valentine, Eiger, Bradley	14
Kaiser (Capt.), Hunt, Werkmeister, Swenson, Ghegan	13
Krisam (Capt.), Pollack, Cohen, Smith, Strauss, Define	12
Burian (Capt.), Gavin, Clemence, Montanye, Whiting	10
Klein (Capt.), Fredericks, Murphy, Weseman, Mewing	10
Meyer (Capt.), M. Meyer, Frankel, Wechsler, King	5½
Hunter (Capt.), Brown, Alexander, Farrell, Barker	4½

200 Point Club

Tom Greenberg	224
Jack Manson	200
Sid Jacobs	200

5 Point Club

Jack Manson
Julie Brown
Joe Donadio

Amalgamated Growth Industries Inc. Stock Offered at $2 a Share

Hiscox, Van Meter & Co., Inc., Philadelphia, Pa., are offering an issue of 149,974 shares of Amalgamated Growth Industries, Inc. common stock at $2 per share.

The net proceeds from the new financing are to be used to purchase patents, patent applications, etc., for new machinery and for working capital.

Amalgamated, with an office at 11 West 42nd Street, New York, N. Y., was incorporated in Delaware on June 9, 1953. It was organized to take over all the rights to patents, patent applications, devices, products, processes, demonstration units and other assets, formerly vested in Synchro Electronic Corp., Quantum Corp., a predecessor Research Corporation and in various individuals.

The key devices, upon which the initial success of the company is primarily based, are the Rava inventions, namely: The Recurrent Surge Arc Welder, the Electric Arc Torch and the Resilient Shell.

The company's immediate program is confined to the development and exploitation of the Recurrent Surge Arc Welder, the continuance of tests with the presently existing 16 KVA Electric Arc Torch, and with the construction, testing and demonstration of the 50 KVA model for lining the heat-affected parts of jet, ramjet and rocket motors, and for demonstration as a small scale pilot plant for the production of titanium metal.

P. & S. Tabulating Group Elects New Slate

Richard H. Stewart of Lehman Brothers, retiring President of the Purchases & Sales—Tabulating Division of Wall Street, Association of Stock Exchange Firms, has announced that the following officers have been elected for the term of one year:

President: James R. Graham, of Asiel & Co.

1st Vice-President: Anthony Rizzuto, of Hayden, Stone & Co.

2nd Vice-President: Raymond Schibowski, of Hirsch & Co.

Treasurer: Albert J. Eisenberg, of Bache & Co.

Assistant Treasurer: Henry J. Bash, of Neuberger & Berman.

Secretary: Carmine Carmello, of Richard J. Buck & Co.

Assistant Secretary: Leon Norako, of Gude, Winmill & Co.

Financial Secretary: John E. Jacobs, of Eastman, Dillon & Co.

The annual induction dinner of the division was held on Saturday, Feb. 27, 1954, at the Hotel Statler.

Joins M. C. Powell Co.

(Special to The Financial Chronicle)

PASADENA, Calif.—Neil Crane has become affiliated with Milton C. Powell Co., Security Building. He was formerly with Harris Upham & Co. and King Merritt & Co.

Southern Natural Gas 3⅛% Bonds Sold

A syndicate headed by Halsey, Stuart & Co. Inc. offered on March 2 $20,000,000 of Southern Natural Gas Co. first mortgage pipe line sinking fund bonds, 3⅛% series, due Feb. 1, 1974, at 100% and accrued interest. This offering was oversubscribed and the books closed. Award of the issue was won by the group at competitive sale on Mar. 1 on a bid of 99.48%.

Net proceeds from the sale of the bonds will be used for the prepayment of the company's 3¼% notes, due June 1, 1954, outstanding in the principal amount of $17,000,000, and which were incurred in connection with the construction program. The balance of the net proceeds will be added to working capital and will be available for the improvement and increasing of the company's facilities.

The bonds will be subject to redemption at regular redemption prices ranging from 103.50% to par, and for the sinking fund at par, plus accrued interest in each case.

Southern Natural Gas Co. operates an interstate natural gas pipe line system extending from gas fields in Texas, Louisiana and Mississippi to markets in Mississippi, Alabama, Georgia and South Carolina. The company's principal business is the transmission and sale of natural gas, at wholesale to other companies and municipalities, and directly to certain industrial users. For the 12 months ended Oct. 31, 1953, the company had total operating revenues of $44,982,000 and net income of $6,702,000. Giving effect to the current financing, outstanding capitalization of the company will consist of $124,670,500 of long-term debt and 3,422,102 shares of common stock.

With Slayton & Co.

(Special to THE FINANCIAL CHRONICLE)

ST. LOUIS, Mo.—Robert L. Degenhart is with Slayton & Company, Inc., 408 Olive Street.

J. Clayton Flax Adds

(Special to THE FINANCIAL CHRONICLE)

SPRINGFIELD, Mass.—Franklin W. Weiss is now with J. Clayton Flax & Co., 1562 Main Street.

DIVIDEND NOTICES

AMERICAN BANK NOTE COMPANY

Preferred Dividend No. 192
Common Dividend No. 182

A quarterly dividend of 75¢ per share (1½%) on the Preferred Stock for the quarter ending March 31, 1954 and a dividend of 20¢ per share on the Common Stock have been declared. Both dividends are payable April 1, 1954 to holders of record March 8, 1954. The stock transfer books will remain open.

E. F. PAGE, *Secretary and Treasurer*
February 24, 1954

Dividend Notice

THE ARUNDEL CORPORATION BALTIMORE MARYLAND

The Board of Directors of the Arundel Corporation has this day (February 25, 1954) declared thirty-five cents per share as a quarterly dividend on the no par value stock of the corporation, issued and outstanding, payable on and after April 1, 1954, to the stockholders of record on the corporation's books at the close of business March 15, 1954.

MARSHALL G. NORRIS,
Secretary.

ANACONDA

DIVIDEND NO. 183

February 25, 1954

The Board of Directors of Anaconda Copper Mining Company has today declared a dividend of Seventy-five Cents ($.75) per share on its capital stock of the par value of $50 per share, payable March 30, 1954, to stockholders of record at the close of business on March 6, 1954.

C. EARLE MORAN
Secretary and Treasurer
25 Broadway, New York 4, N. Y.

DIVIDEND NOTICES

Allegheny Ludlum Steel Corporation

Pittsburgh, Pa.

AL

At a meeting of the Board of Directors of the Allegheny Ludlum Steel Corporation held today, February 25, 1954 a dividend of fifty cents (50c) per share was declared on the Common Stock of the Corporation, payable March 31, 1954, to Common stockholders of record at the close of business on March 5, 1954.

The Board also declared a dividend of one dollar nine and three-eighths cents ($1.09375) per share on the $4.375 Cumulative Preferred Stock of the Corporation, payable March 15, 1954, to Preferred stockholders of record at the close of business on March 5, 1954.

S. A. McCASKEY, JR.,
Secretary

BRILLO

MANUFACTURING COMPANY, INC.

Dividend No. 96

A Dividend No. 96 of Forty Cents ($.40) on the Common Stock has been declared, payable April 1, 1954 to stockholders of record March 15, 1954.

M. B. LOEB, President

Brooklyn, N. Y.

BENEFICIAL LOAN CORPORATION

DIVIDEND NOTICE

Dividends have been declared by the Board of Directors, as follows:

CUMULATIVE PREFERRED STOCK

$3.25 Dividend Series of 1946
$.81¼ per share
(for quarterly period ending March 31, 1954)

COMMON STOCK

Quarterly Dividend of $.60 per share

The dividends are payable March 31, 1954 to stockholders of record at close of business March 15, 1954.

William E. Thompson
March 1, 1954 *Secretary*

OVER 800 OFFICES — Beneficial Loan SYSTEM — IN U. S. AND CANADA

DIVIDEND NOTICES

AMERICAN LOCOMOTIVE COMPANY

30 Church Street — Alco — New York 8, N. Y.

PREFERRED DIVIDEND No. 183
COMMON DIVIDEND No. 119

Dividends of one dollar seventy five cents ($1.75) per share on the Preferred Stock and of twenty five cents (25¢) per share on the Common Stock of this Company have been declared, payable April 1, 1954, to holders of record at the close of business on March 12, 1954. Transfer books will not be closed.

CARL A. SUNDBERG
February 25, 1954 *Secretary*

DREWRYS

A dividend of thirty-five (35) cents per share for the first quarter of 1954 has been declared on the common stock, and the regular quarterly dividend on the 5¾% cumulative preferred stock of this company, both payable March 10, 1954 to stockholders of record at the close of business on February 25, 1954.

Drewrys Limited U. S. A., Inc.
South Bend, Indiana
T. E. JEANNERET,
Secretary and Treasurer

New York, March 3, 1954

The Board of Directors has this day declared a quarterly dividend of Seventy-five (75) Cents per share on the Capital Stock of this Company for the quarter ending March 31, 1954, payable on April 15, 1954, to stockholders of record at the close of business March 15, 1954.

STUART K. BARNES, Secretary

Guaranty Trust Company of New York

CANADA DRY

DIVIDEND NOTICE

The following dividends have been declared by the Board of Directors:

Preferred Stock

A regular quarterly dividend of $1.0625 per share on the $4.25 Cumulative Preferred Stock, payable April 1, 1954 to stockholders of record at the close of business on March 15, 1954.

Common Stock

A quarterly dividend of $0.15 per share on the Common Stock, payable April 1, 1954 to stockholders of record at the close of business on March 15, 1954.

Transfer books will not be closed. Checks will be mailed.

WM. J. WILLIAMS
Vice-President & Secretary

DIVIDEND NOTICES

MIAMI COPPER COMPANY

61 Broadway, New York 6, N. Y.

February 25, 1954

A quarterly dividend of fifty (50¢) cents per share has been declared, payable March 30, 1954, to stockholders of record at the close of business March 10, 1954.

JOHN G. GREENBURGH,
Treasurer.

NATIONAL STEEL *Corporation*

NATIONAL STEEL

97th Consecutive Dividend

The Board of Directors at a meeting on February 17, 1954, declared a quarterly dividend of seventy-five cents per share on the capital stock, which will be payable March 11, 1954, to stockholders of record February 26, 1954.

PAUL E. SHROADS
Vice President & Treasurer

INTERNATIONAL SHOE COMPANY

ISCO

St. Louis

172ND CONSECUTIVE DIVIDEND
Common Stock

A quarterly dividend of 60¢ per share payable on April 1, 1954 to stockholders of record at the close of business March 15, 1954, was declared by the Board of Directors.

ANDREW W. JOHNSON
Vice-President and Treasurer

Febr ary 23, 1954

Minerals International Chemicals

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

General Offices:
20 North Wacker Drive, Chicago 6

★

DIVIDENDS
were declared by
the Board of Directors on
Feb. 25, 1954, as follows:

4% Cumulative Preferred Stock
48th Consecutive Regular
Quarterly Dividend of
One Dollar ($1.00) per Share.

$5.00 Par Value Common Stock
Regular Quarterly Dividend of
Forty Cents (40¢) per Share.

Both dividends are payable
March 30, 1954, to stockholders
of record at the close of
business March 19, 1954.

A. R. Cahill
Vice President and Treasurer

★

Mining and Manufacturing
Phosphate • Potash • Plant Foods
Chemicals • Industrial Minerals
Amino Products

DIVIDEND NOTICES

ROME CABLE *Corporation*
ROME · NEW YORK

ROME CABLE ROME, N.Y.

60th Consecutive Dividend

The Board of Directors of Rome Cable Corporation has declared consecutive Dividend No. 60 for 35 cents per share on the Common Capital Stock of the Corporation, payable March 30, 1954, to holders of record at the close of business on March 10, 1954.

GERARD A. WEISS, Secretary
Rome, N. Y., March 3, 1954

REYNOLDS METALS COMPANY

Reynolds Metals Building
Richmond 19, Virginia

COMMON DIVIDEND

A dividend of twenty-five cents (25¢) a share on the outstanding common stock has been declared payable April 1, 1954, to holders of record at the close of business March 22, 1954.

The transfer books will not be closed. Checks will be mailed by Bank of the Manhattan Company.

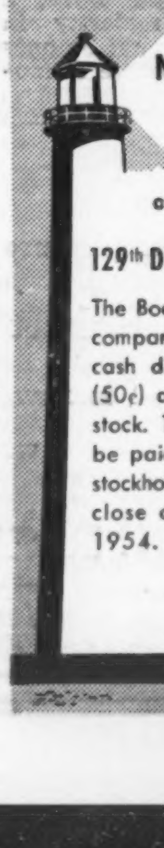
ALLYN DILLARD, *Secretary*
Dated, February 25, 1954

THE **West Penn** *Electric Company*
(Incorporated)

Quarterly Dividend
on the
COMMON STOCK
55¢ PER SHARE

Payable March 31, 1954
Record Date March 12, 1954
Declared March 3, 1954

WEST PENN ELECTRIC SYSTEM
Monongahela Power Company
The Potomac Edison Company
West Penn Power Company



NATIONAL UNION FIRE INSURANCE COMPANY
of PITTSBURGH, PA.

129th DIVIDEND DECLARATION

The Board of Directors of this company today declared a cash dividend of Fifty Cents (50¢) a share on the capital stock. This cash dividend will be paid March 30, 1954 to stockholders of record at the close of business March 9, 1954.

William McLean
Vice President-Treasurer

March 2, 1954

C.I.T. FINANCIAL CORPORATION
DIVIDEND NO. 126

CIT

A quarterly dividend of $0.50 per share in cash has been declared on the Common Stock of C. I. T. FINANCIAL CORPORATION, payable April 1, 1954, to stockholders of record at the close of business March 10, 1954. The transfer books will not close. Checks will be mailed.

C. JOHN KUHN,
Treasurer

February 25, 1954.

Washington . . . And You

Behind-the-Scene Interpretations from the Nation's Capital

WASHINGTON, D. C.—There is no doubt that most of Washington, like the rest of the country, was surprised and perhaps not a little shocked when Senator Walter F. George completely reversed what all had come to think was the Georgia Senator's tax philosophy.

Senator George got up before the National Press Club and argued with seemingly the greatest conviction that this unjust business of taxing the poor too harshly must be reversed; that the onerous burden of taxation upon the lower and lower middle income classes must be lessened; that an unbalanced budget would not be inflationary. His latest surprise was to kick over the tax revision bill. He said that while he disagreed with no part of that bill, its enactment should await another day.

This is the same Senator Walter F. George who as Chairman of the Finance Committee during Democratic Administrations fathered tax legislation which—if not all under Senator George—steadily whittled down the personal exemptions under the income tax from $2,000 to, at one time, $500. It is the same Senator George who was always known as a foe of unbalanced budgets and who disliked deficit financing. It is the same Senator George who never seemed to cozen to the confiscatory rates of taxation upon income in the upper brackets, and who was usually counted upon to at least oppose somewhat the trend toward hitting at business and investment incentives.

And it is the same Senator George of whom there were few more ardent opponents of the Excess Profits tax.

Yet within a certain limited circle in this capital city, there were some to whom the Senator's shift in position came as no great surprise. They are those older Republican legislators who remember their history and who have a different appraisal of the nature of political warfare than has President Eisenhower and his essentially politically amateur if otherwise mature and successful lieutenants.

To these older hands, who do not appraise politics as a gentleman's game, it has been expected from the moment that it became clear the Republicans lacked, on a major issue, a strong, working majority in Congress, that it would be only a matter of time before Democrats, Conservatives as well as Leftwing, would utilize any weapon in the political arsenal to cut down their opponent.

That moment has come.

Hatchet Men of '30's Were Conservatives

These men recall, for instance, that in the last two years of Herbert Hoover, it was the Democratic members of Congress in a leadership position who figuratively both cut Mr. Hoover into political ribbons and hacked at him with a political meat ax.

These leaders, under the accident of seniority, were primarily southerners. Great orators like the late Senator Pat Harrison of Mississippi heaped public scorn and ridicule upon the last previous Republican President. John Nance Garner, a Conservative until he became Mr. Roosevelt's stand-in, one time sponsored tax legislation to demonstrate that Democrats too could be fiscally responsible, and directly fathered a big economy program. Yet in that same 1930-32 Congress, Mr. Garner did a merry and expert job of carving up Herbert Clark Hoover.

Power Motives Figure

Many make the mistake of miscalculating the motives of 99% of the professional politicians or bureaucrats, excluding the big businessmen-officials from this category, as individuals who already had made an outstanding mark in the competitive business world, and whose social prestige does not derive mainly from holding office.

This most impelling motivation is, without ascribing it to any individual in particular, power and position.

For example, if Senator George aspired to return one day to the Chairmanship of the Finance Committee, his only chance to do so would come about as a consequence of a Democratic victory at the Congressional elections next November. This correspondent is entirely without any information as to the Senator's private motives. As a general rule, however, it is a good bet that it is a rare ranking minority member of a Committee who would not much prefer to be instead the Chairman.

There are certain compensations, wholly intangible, which come from such position, even if one were, for example, Chairman of the Finance Committee during the incumbency of a President of one's own party, even with a President whose ideas one abhorred.

One can have the satisfaction of carving his principles somewhat upon that disliked President's program. One becomes the individual who holds a shared but neverthless big power over the whole economy. One becomes the individual whom thousands of responsible and important people approach for support, for guidance, for aid.

And the expression of the ego is not more subordinate, occupationally, in the man in public life than in one in private life.

FDR's Lieutenants Changed Philosophy

In this connection, this correspondent points up again a personal recollection of approximately 19 years and 11 months back, in the hectic special session, the first, which began under FDR in March, 1933, when the chairmen of legislative committees were called to the White House and handed the drafts of Mr. Roosevelt's sweeping, so-called emergency legislation.

This particular chairman, even as were most of the original Democratic chairmen of committees, was fundamentally a conservative at heart. This correspondent ran into this chairman in the Capitol just after, at a White House breakfast, he had been handed a copy of one of the most radical New Deal measures, one basically still in force, and one which has literally cost more billions than people comprehend during its 20 years. The chairman invited the correspondent for coffee.

Taking out of his pocket a copy of the bill, the chairman almost wailed, "Why can they do things like this to us?" He first acquiesced reluctantly, then in a year or so accepted, and finally embraced this particular spending-regulatory scheme. He became its faithful advocate in battles with the "reactionary Republicans," and was rewarded with a judgeship which secured him a large salary for life.

And his case was not unique. It happened to others. Should Mr. Eisenhower's welfare program—for the moment apparently more talk than action—become active again and the President gain a fresh mandate next November, then it will happen also to Republican chairmen who in the past have opposed the welfare state.

Democrats Would Hit Any Tax Program

Under these circumstances it would matter little what kind of a tax program the President sponsored. Even if it seemed perfect, the Democrats would be impelled, for such is the brutal nature of politics, to shoot holes in it. About all that can be suggested is an old rule on military strategy which General Eisenhower learned at West Point, and which is applicable to the political wars under 1954 conditions:

When confronted with an enemy whose forces are equal to or larger than your own, avoid giving battle, unless one has a strategy or terrain so likely to be vastly superior as to overwhelm the enemy. In this case the "enemy" thinks it is superior political strategy to talk boosted income tax exemptions and to condemn the GOP tax program (whose benefits to individuals are dispersed and complex) as something designed only for the rich and business.

No Gentlemen's Game

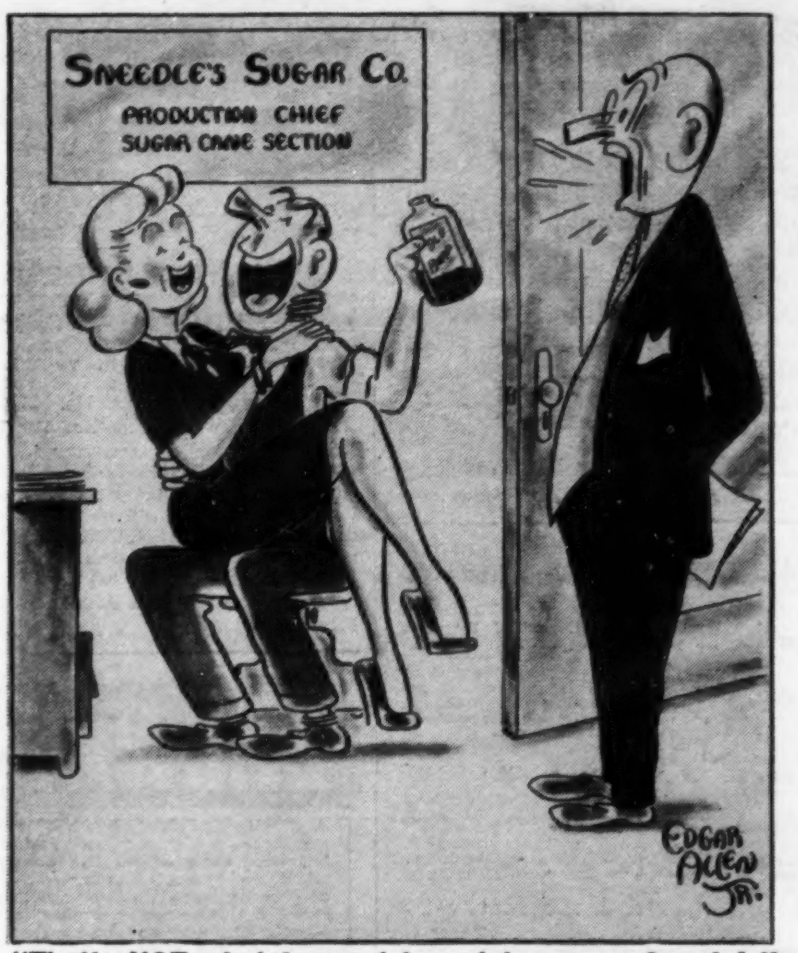
Thus the threatened debacle over Senator George is merely symptomatic of the failure of the present Administration, with its "be nice to Democrats" attitude, to comprehend the tooth and claw nature of politics as it is played.

So it is with the anti-communist issue. This reporter is not expressing a personal opinion that this is or is not a good issue, or that Senator McCarthy is the worst or best ball carrier on that issue.

The point is that when Attorney General Brownell raised the White case, Democrats were as terrified as they were angry. When Mr. Eisenhower pulled the rug out from Brownell on this issue, they remained angry but lost their terror. Know a Democrat well enough and he will admit Eisenhower threw away a wonderful if speculative chance to demagogue the blazes out of the Democrats, whilst his GOP Congressional followers still with mixed results raise the issue.

(This column is intended to reflect the "behind the scene" interpretation from the nation's Capital and may or may not coincide with the "Chronicle's" own views.)

BUSINESS BUZZ



"That's NOT what I meant by raising more Cane! ! "

Business Man's Bookshelf

American Income and Its Use—Elizabeth E. Hoyt, Margaret G. Reid, Joseph L. McConnell & Janet M. Hooks — Harper & Brothers, 49 East 33rd Street, New York 16, N. Y. (cloth), $4.

Bituminous Coal Industry, Proceedings of a conference on the Commercial & Economic Health of — Bureau of Business Research, College of Commerce, West Virginia University, Morgantown, W. Va. (paper).

Financial Public Relations for the Business Corporation—Herman S. Hettinger—Harper & Brothers, 49 East 33rd Street, New York 16, N. Y. (cloth), $3.50.

Italian Affairs — Periodical—Italian Affairs, Via Veneto 56, Rome, Italy; $1 per year; 15¢ per copy.